DOCUMENT RESUME

ED 097 248 SO 007 809

TITLE	Population of the United States, Trends and Prospects: 1950-1990. Series P-23, No. 49.
INSTITUTION	Bureau of the Census (DOC), Suitland, Md. Population Div.
PUB DATE	May 74
NOTE	226p.
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 ($2.75)
EDRS PRICE	MF-$0.75 HC-$11.40 PLUS POSTAGE
DESCRIPTORS	*American Culture; Birth Rate; *Census Figures; Death; Employment Patterns; Enrollment; Ethnic Distribution; Futures (of Society); Human Geography; *Human Living; Marriage; Migration; *National Demography; Population Distribution; *Population Trends; School Demography; Sociocultural Patterns; Socioeconomic Influences
IDENTIFIERS	World Population Conference

ABSTRACT

This document, one of the series of United States Current Population Reports, is also a part of a series of "country statements," prepared as background material for the World Population Conference held in August 1974, which describe the demographic situations of approximately 57 cooperating countries. The population situation is presented as a matrix of interrelated elements, reflecting an awareness of the close relationship between social and economic development and population trends. The document is divided into six chapters: (1) Population Growth--an overview; (2) Components of Population Growth--birth, death, and migration; (3) Population Composition--age and sex structure; marital status; families, households, and living arrangements; literacy, education, and school enrollment; and national origin, race, and religion; (4) Population Distribution and Internal Migration; (5) The Labor Force--social and demographic characteristics and breakdowns by occupation, industry, and income; (6) Demographic Projections of the above elements of population; and (7) Summary and Socioeconomic Implications of the population trends. A bibliography concludes the document. (JH)

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CURRENT POPULATION REPORTS

Special Studies

Series P-23, No. 49
Issued May 1974

POPULATION OF THE UNITED STATES

Trends and Prospects: 1950–1990

—Population Growth
—Composition and Distribution
—Economic Characteristics
—Population Projections

U. S. DEPARTMENT OF COMMERCE
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Issued May 1974

SUGGESTED CITATION

U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 49,
Population of the United States, Trends and Prospects: 1950-1990,
U.S. Government Printing Office, Washington, D.C., 1974.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, $2.75. Current Population Reports issued in Series P-20, P-23, P-25, P-26, P-27, P-28 (summaries only), P-60, and P-65 are sold as a single consolidated subscription at $30.50 per year, $7.75 additional for foreign mailing.

FOREWORD

A report to the Congress of the United States by President Richard Nixon on May 3, 1973, included the following statement:

> In order to focus international attention on the vital problem of world population growth, the United Nations has designated next year as World Population Year. A World Population Conference has been called for August 1974. I believe information and action programs undertaken as part of the observance can be a valuable means of furthering appreciation of population problems and of generating more resolute action by nations to solve them. The United States will cooperate fully with the United Nations in observing the year and working to make the World Population Conference a success.

As part of the background material for the World Population Conference, a series of "country statements" following the same outline is being prepared on the demographic situation in approximately 57 cooperating countries. This monograph is the country statement for the United States.

Studies such as this one reflect an awareness of the close relationship between social and economic development, on the one hand, and population growth, composition, and distribution, on the other. This relationship has been examined largely at the national level, but is applies likewise at the subnational and family levels. An attempt has been made to present the population situation in the United States as a matrix of interrelated elements rather than as isolated facts. In this framework, the determinants and consequences of population change become most apparent. Moreover, with this type of analysis as background material, the processes of change should be more readily understood by those who are in a position to propose interventions that would channel social and economic development into directions that are of more benefit to the country, the local community, and the individual family.

Most of the statistics presented in the tables were based on large samples (5 to 25 percent) from U.S. decennial censuses of 1950, 1960, and 1970; on complete counts or large samples (20 to 50 percent) from U.S. annual vital statistics records; on nationwide samples of 25,000 to 50,000 households in the Current Population

Survey; or on U.S. population projections to the year 2000 based on these sources and reports on international migration. The population bases are generally large enough to make comparisons reliable where the magnitude of the differences in the statistics among population subgroups or between points in time are clearly of social or economic importance.

ACKNOWLEDGMENTS

The preparation of the monograph series was organized by Jean Bourgeois-Pichat, of Paris, France, who is the Chairman of CICRED, the Committee for International Coordination of National Research in Demography. Financial support for the publication of the monograph series was provided by the United Nations Fund for Population Activities.

This monograph was edited by Paul C. Glick, Senior Demographer, with the assistance of Karen M. Mills, Statistician, under the general supervision of Meyer Zitter, Chief of the Population Division, U.S. Bureau of the Census, Social and Economic Statistics Administration. The project was essentially a joint undertaking by specialists in the Population Division; Conrad Taeuber, former Associate Director of the Bureau, prepared the first chapter. The writing benefitted from consultation with staff members in the U.S. Departments of State, Labor, and Health, Education, and Welfare. The assistance of Joyce K. Balch who typed several drafts of the monograph is gratefully acknowledged.

Within the Publications Services Division, Social and Economic Statistics Administration, many individuals made significant contributions in the areas of publication planning and design, editorial review, composition, and printing procurement.

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Chapter I. POPULATION GROWTH

The total population of the United States on January 1, 1974, was estimated at 211,216,000. The increase during the preceding year was 1,499,000, or 0.71 percent. This was the lowest rate of increase for any year since 1937 and less than half the annual growth rate registered during the 1950's. The decline in the annual rate of growth directly reflects the decline in the birth rate, which was 14.9 per 1,000 population in 1973—the lowest annual birth rate in the history of the country. Net civilian immigration contributed 22 percent of the total population increase in 1973.

In the nearly 200 years since the United States was established, it has grown from a population of about 4 million to one of more than 50 times as large. There were fewer than five persons per square mile of territory in 1790. Both the total area and the population increased, and in 1970 there were nearly 60 persons per square mile.

During the 100 years after the first census, which was taken in 1790, the national area increased about threefold, but the population increased about 16 times. This period was a time of settling the vast areas of the country. In 1890 the census report pointed out the end of the western frontier, that is, there was then no longer any major expanse of cultivable land not inhabited by at least two persons per square mile. Simultaneously with population growth in the agricultural areas, there was rapid industrialization and urbanization, especially in the latter part of that period.

The second century witnessed a continued peopling of much of the land area, with further rapid growth of the urban population and in the number of metropolitan areas. After 1920, the growth was especially rapid in sections outside the boundaries of the central cities of standard metropolitan statistical areas. By 1970, the 75.6 million persons in these "suburban" areas, defined here as the metropolitan area outside the central cities, exceeded the 63.8 million persons in the central cities. Likewise, the population of these outer sectors of the metropolitan areas exceeded the coincidentally identical number of persons, 63.8 million, who were

living completely outside the metropolitan areas. During this second century the rates of population growth declined, recovered somewhat, and then resumed at the lowered rates.

More than 50 million persons have been added to the population since 1950. However, the rate of growth has declined. The annual average rate of growth at the beginning of the century was about 2 percent. It averaged 1.7 percent during the "baby boom" years of the 1950's and 1.24 percent during the 1960's. The average for the years 1970 to 1973 was 0.89 percent.

Current rates of growth are similar to the lowest rates of growth in the Nation's history, those during the depression years of the 1930's. But the situation is quite different today from what it was some 40 years ago. Then, growth was almost entirely the result of an excess of births over deaths. Even the unprecedented low birth rates of that period were above the birth rate of 1973, and death rates were also somewhat above those of recent years. During the 1930's, immigration made very little net contribution to the national growth; in some of those years there was a slight net emigration. In recent years, immigration from other countries (and from Puerto Rico) has accounted for 20 to 25 percent of national growth, and the share contributed by natural increase has correspondingly been reduced to 75 to 80 percent.

The Immigration Act of 1965 introduced a major change in national immigration policy. Quotas based on national origin, as established by the Act of 1924, were abolished. Instead, country and regional quotas were established, and new criteria gave preference to individuals with specified characteristics. The provisions of the Act were fully operative on July 1, 1968. Net alien immigration for the years since then has been substantially higher than it was during the earlier part of the decade. There were also substantial changes in the geographic distribution of immigrants by country or region of birth. During the first half of the 1960's, 37 percent of the alien immigrants came from Europe. In 1971-72, that proportion dropped to 23 percent; the proportion from Southern Europe nearly doubled, while that from other sections of Europe declined to about one-fourth of its previous share. Immigrants from Asia accounted for 31 percent of the total in 1971-72, whereas their share had been only 7 percent during the first half of the 1960's. The share of North American countries dropped from 44 to 38 percent.

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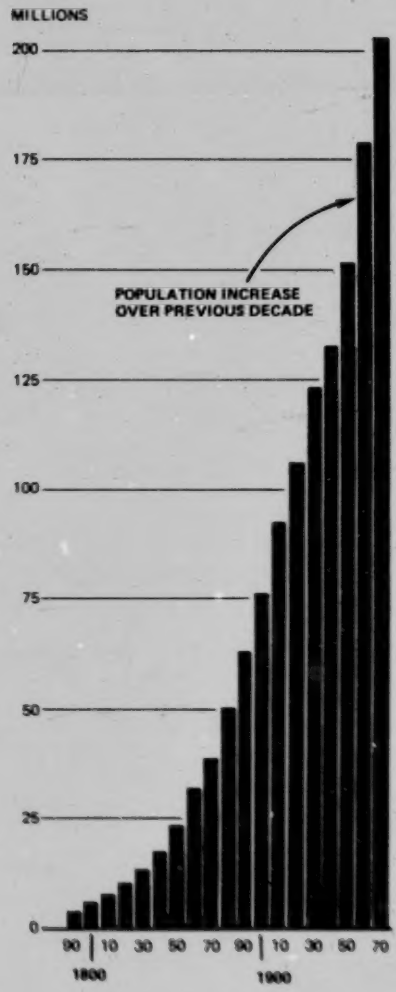
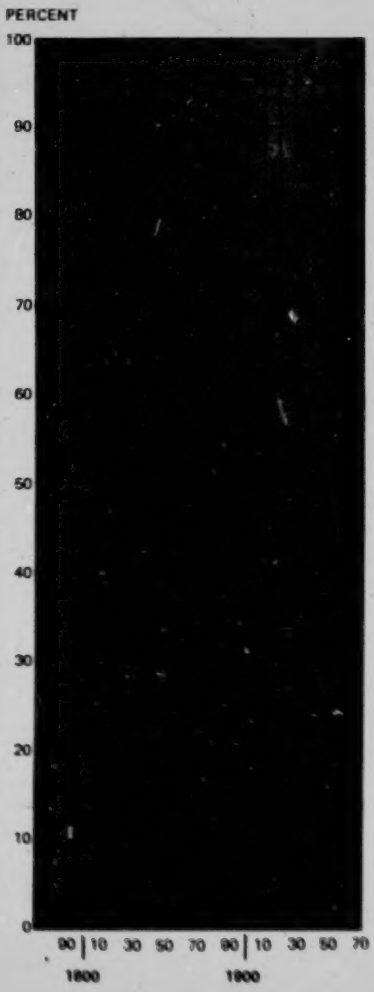
Figure 1.1 Population Increase by Decade: United States, 1790 to 1970



Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, figure 14.

Figure 1.2 Percent Increase in Population by Decade: United States, 1790 to 1970



Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, figure 15.

The long-term decline in the proportion of the total population born abroad has continued. In 1970, 5 percent of the population was foreign born and 12 percent was native of foreign or mixed parentage. The comparable figures for 1950 were about 7 and 16 percent, respectively.

Recent population growth has occurred largely in the urban, and especially in the metropolitan, population. For many years, metropolitan areas have grown more rapidly than the rest of the country, and this differential continued but at a diminished rate during the 1960's. In that decade more than four-fifths of the national growth occurred in the standard metropolitan statistical areas (SMSA's). Within the SMSA's more than four-fifths of the growth took place in the suburban areas, as defined above. Many of the large cities lost population or gained residents only by annexation. When cities extended their administrative boundaries, the suburban residents in the annexed territory were reclassified as residents of the cities; nonetheless, the population of the areas outside the central cities increased by 27 percent during the 1960's, more than double the national average.

At the time of the first census in 1790 only about 5 percent of the population was classified as urban. That proportion has increased rapidly. The 1920 census was the first one to report that more than half the people in the United States were then living in urban places, and by 1970 nearly three-fourths (73 percent) were classified as urban. Urban residents were concentrated on 1.5 percent of the land area.

Although the proportion of the population which is rural has declined, the number of persons living in rural areas in 1970 was about the same as in 1960. In effect, the entire excess of births over deaths of the rural population during the decade was absorbed into the population of urban areas through movement to the urban areas or through reclassification of rural territory as urban. In terms of the (changing) areas as defined at each census, the urban population increased both within and outside the metropolitan areas, whereas the rural population outside these areas declined while that in the SMSA's increased by a similar amount. However, the entire increase of rural population within SMSA's was apparently a result of the addition of rural population through change in SMSA boundaries. At the same time, in some of the more rural sections of the metropolitan area counties, there was continued growth of the

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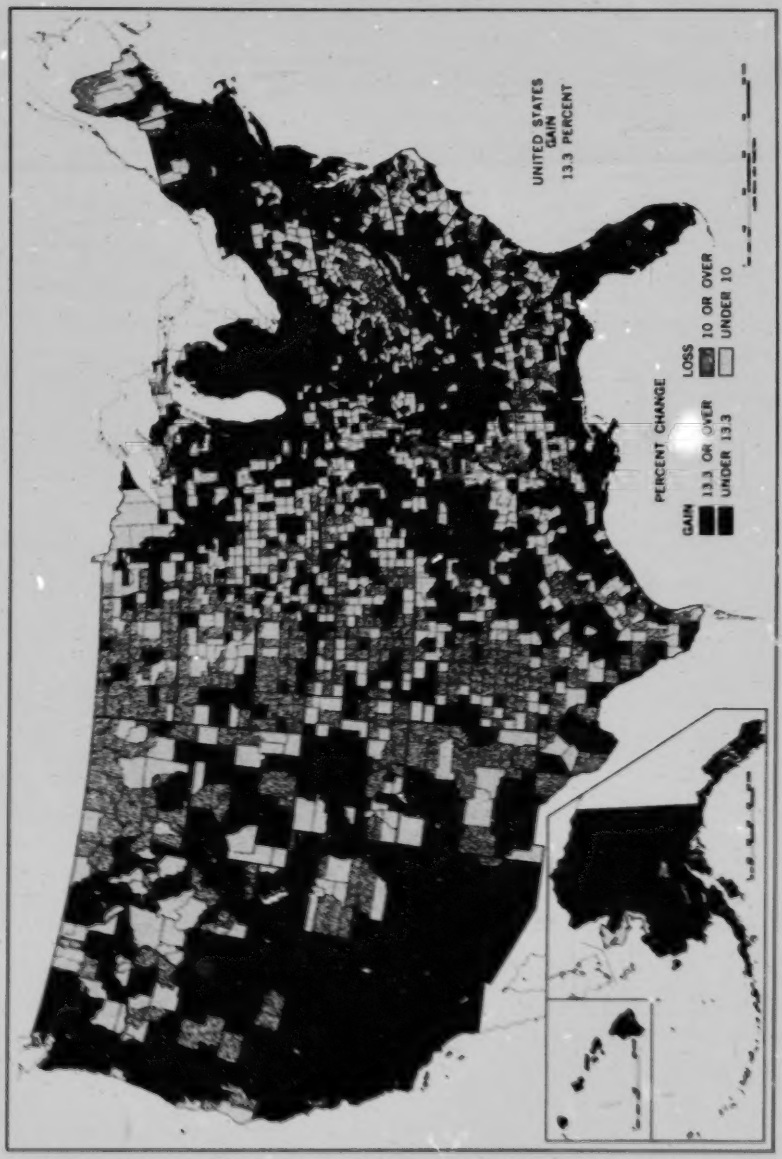
Figure 1.3 Percent Change in Population by Counties: United States, 1960 to 1970



Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, figure 28.

population, and this was not necessarily followed by incorporation into municipalities which would qualify as urban. Part of the growth of metropolitan areas occurred because most of the international migrants established permanent residence in the SMSA's.

Differences in rates of growth in urban and rural areas reflected differences in regional rates of growth. During the 1960's the North Central States–including the rural "Middle West"–were generally areas of outmigration; the Northeastern States had a small net inmigration. The West--the most highly urban region–was the region which grew most rapidly, and it was an area of substantial inmigration. The South, which for many years had been an area of outmigration, had a net gain by migration during the 1960's. However, this growth in the South was concentrated to a large extent in a few metropolitan areas, whereas most of the more rural sections continued to report losses.

Within the regions, growth was not evenly distributed. Two-fifths of the administrative units, called counties, reported a decline in population between 1960 and 1970. These were largely rural counties in the agricultural areas of the Middle West and the South. Many of these same areas had lost population during the preceding two decades, and for some the history of losses covers a much longer period. Only about one-fourth of the counties gained at more than the national rate during the 1960's.

The Negro (black) population of the United States accounted for nearly 20 percent of the total population when the Nation was established. In subsequent years its share of the total declined, primarily because of the large volume of white immigrants from Europe. The number of black residents continued to increase and in 1970, with a total of 22.6 million, they were about 30 times as numerous as the 757,000 recorded in 1790. In 1970 they accounted for 11 percent of the total population, a slight increase from the approximately 10 percent for the years 1920 to 1950. Although black birth rates are somewhat above those for the white population, they have moved in parallel to the rates for the white population. Their death rates are also somewhat above those for the white population, and their rate of natural increase is somewhat higher than that of the white population.

During the early years of U.S. history, birth rates were high enough and death rates low enough so that natural increase alone

accounted for growth of more than 30 percent per decade. It was in this early American population growth that Malthus found his classic illustration of man's potentiality to reproduce under favorable circumstances. But the long transition characterized by declining fertility and mortality and slowing natural increase became evident about the time when the first census was taken in 1790 or soon thereafter. This trend continued along with agricultural expansion, industrialization, and urbanization and along with the absorption of large numbers of immigrants during the 19th century. It reached a low point during the depression years of the 1930's when the women who had been born between 1900 and 1909 were in the major childbearing years.

The long decline in fertility involved a number of other changes. Age at marriage increased, particularly in New England and among the children of immigrants. Then, late in the 19th century, age at marriage began to move downward. The proportion of persons who married at the younger ages increased slowly with virtually no interruption decade by decade until the lowest recorded level was reached in the mid-1950's. Not until the 1960's did this pattern give way to another movement upward in the age at marriage and in the proportion of women who remained single into their early twenties. More detail on these changes is presented in the next two chapters.

Chapter II. COMPONENTS OF POPULATION GROWTH

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The Components

Each of the three basic components of population growth—births, deaths, and net international migration—has developed a different trend during recent years in the United States. All three of the components reached or remained at low levels during the depression years of the 1930's, and then the number of births moved generally upward through the 1940's and into the 1950's.

During the 1960's, after the number of births had passed a peak and was declining, the number of deaths rose slowly, and the net number of immigrants fluctuated at a relatively high level without establishing any real trend, except for an increase in the late 1960's after a change in immigration laws (table 2.1).

Since the number of births is by far the largest of the three components of population growth in the United States, the changes in births over time have essentially determined the pattern of change in population growth in terms of absolute numbers and in the rate per 1,000 population. The chief interest here, however, lies in the changes of the rate during the last four decades and the main contributions of the components to these changes.

During the 1930's the rate of growth fell considerably below 10 per 1,000 population as the crude birth rate dipped under 20 for the first time in American history and as net immigration rates became negligible (table 2.2). The birth and net immigration rates increased somewhat during World War II, yielding annual growth rates of 9 to 13 per 1,000 population through 1945.

After World War II, the "baby boom," which occurred in most industrialized countries but lasted for varying lengths of time, led to an immediate jump in the annual birth and growth rates in the United States. From 1946 through 1961, the birth rate ranged from 24 to 27, and the growth rate ranged from 15 to 18. Although the increased growth rate resulted largely from the rise in the birth rate, contributions were also made by the decline in the crude death rate to about 9 or 10 per 1,000 population and the increase in the annual net immigration rate to about 2 per 1,000.

The annual birth rate decreased slightly from 1957 to 1961, after which a pronounced decline occurred. Thus, 1961 may be taken as the end of the "baby boom" in the United States. In that year, the annual growth rate, 16.1, was more than twice the level of 7.1 recorded in 1973.

Between 1961 and 1968, the annual growth rate dropped from 16.1 to 9.7, or by 40 percent. The birth rate declined from 23.5 to 17.6 during this period while the death rate and net immigration rate fluctuated in narrow ranges. This decline in the annual birth rate occurred in spite of changes in the age structure of the population, which, if the age-specific birth rates of 1961 had

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Table 2.1 Estimates of the Components of Population Change by Calendar Year: United States, 1930 to 1973

(Numbers in thousands. Includes Alaska, Hawaii, and Armed Forces overseas for 1940 to 1974 but not for 1930 and 1935)

Year	Population at beginning of the year	Net change during the year[1]		Components of change during the year		
		Number	Percent[2]	Births[3]	Deaths[4]	Net civilian immigration
1974	211,216	(X)	(X)	(X)	(X)	(X)
1973	209,717	1,499	0.71	3,141	1,978	340
1972	208,089	1,628	.78	3,256	1,964	338
1971	206,072	2,017	.98	3,554	1,924	387
1970	203,849	2,223	1.09	3,725	1,927	438
1969	201,760	2,089	1.04	3,605	1,834	453
1968	199,808	1,952	.98	3,535	1,948	398
1967	197,736	2,072	1.05	3,555	1,861	414
1966	195,539	2,197	1.12	3,642	1,869	455
1965	193,223	2,315	1.20	3,801	1,830	373
1964	190,668	2,555	1.34	4,070	1,799	317
1963	188,013	2,655	1.41	4,142	1,815	361
1962	185,242	2,771	1.50	4,213	1,758	351
1961	182,287	2,955	1.62	4,317	1,703	373
1960	179,386	2,901	1.62	4,307	1,708	327
1959	176,447	2,939	1.67	4,313	1,663	292
1958	173,533	2,915	1.68	4,279	1,655	292
1957	170,571	2,961	1.74	4,332	1,641	272
1956	167,513	3,058	1.83	4,244	1,572	387
1955	164,588	2,925	1.78	4,128	1,537	337
1954	161,690	2,898	1.79	4,102	1,489	287
1953	158,973	2,717	1.71	3,989	1,531	261
1952	156,309	2,663	1.70	3,933	1,512	242
1951	153,622	2,688	1.75	3,845	1,501	336
1950	151,135	2,486	1.65	3,645	1,468	299
1949	148,580	2,556	1.72	3,667	1,452	323
1948	146,047	2,533	1.73	3,655	1,453	280
1947	143,394	2,653	1.85	3,834	1,455	238
1946	141,229	2,165	1.53	3,426	1,409	151
1945	139,767	1,462	1.05	2,873	1,549	162
1944	138,170	1,597	1.16	2,954	1,582	202
1943	136,371	1,799	1.32	3,118	1,503	148
1942	134,657	1,714	1.27	3,002	1,407	83
1941	133,275	1,382	1.04	2,716	1,415	60
1940	132,054	1,221	.92	2,570	1,432	77
1935	126,874	853	.67	2,377	1,421	-2
1930	122,487	1,128	.92	2,618	1,419	113

X Not applicable.

[1]Includes estimates not shown separately for overseas admissions into and discharges from the Armed Forces and the "error of closure" between censuses (the difference between the population as shown by a census count and the estimate of the population on that date as derived from the previous census count and data on the various components of population change for the intercensal period).

[2]Percent of population at beginning of period.

[3]Adjusted for underregistration through March 1970.

[4]Deaths occurring in the United States plus estimated deaths occurring to Armed Forces overseas. Infant deaths adjusted for underregistration through March 1960.

Source: U.S. Bureau of the Census, Current Population Reports, "Estimates of the Population of the United States and Components of Change: 1972 (With annual data from 1930)," Series P-25, No. 499, table 1 and appendix B. For 1973, unpublished preliminary estimates, subject to revision.

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Table 2.2 Annual Rates of Net Growth, Natural Increase, and Net Civilian Immigration: United States, 1930 to 1973

(Rate per 1,000 midyear population. Includes Alaska, Hawaii, and Armed Forces overseas for 1940 to 1973 but not for 1930 and 1935)

Year	Net growth rate[1]	Rate of natural increase	Birth rate	Death rate	Net civilian immigration rate
1973.....	7.1	5.5	14.9	9.4	1.6
1972.....	7.8	6.2	15.6	9.4	1.6
1971.....	9.7	7.9	17.2	9.3	1.9
1970.....	10.9	8.8	18.2	9.4	2.1
1969.....	10.3	8.2	17.8	9.5	2.2
1968.....	9.7	7.9	17.6	9.7	2.0
1967.....	10.4	8.5	17.9	9.4	2.1
1966.....	11.2	9.0	18.5	9.5	2.3
1965.....	11.9	10.1	19.6	9.4	1.9
1964.....	13.3	11.8	21.2	9.4	1.7
1963.....	14.0	12.3	21.9	9.6	1.9
1962.....	14.9	13.2	22.6	9.4	1.9
1961.....	16.1	14.2	23.5	9.3	2.0
1960.....	16.1	14.4	23.8	9.5	1.8
1959.....	16.5	14.9	24.3	9.4	1.6
1958.....	16.7	15.0	24.5	9.5	1.7
1957.....	17.2	15.7	25.2	9.5	1.6
1956.....	18.1	15.8	25.1	9.3	2.3
1955.....	17.6	15.6	24.9	9.3	2.0
1954.....	17.8	16.0	25.2	9.1	1.8
1953.....	17.0	15.3	24.9	9.6	1.6
1952.....	16.9	15.4	25.0	9.6	1.5
1951.....	17.4	15.1	24.8	9.7	2.2
1950.....	16.3	14.3	23.9	9.6	2.0
1949.....	17.1	14.8	24.5	9.7	2.2
1948.....	17.2	15.0	24.8	9.9	1.9
1947.....	18.3	16.4	26.5	10.1	1.6
1946.....	15.3	14.2	24.1	9.9	1.1
1945.....	10.4	9.4	20.5	11.0	1.2
1944.....	11.5	9.9	21.3	11.4	1.5
1943.....	13.1	11.8	22.7	10.9	1.1
1942.....	12.7	11.8	22.2	10.4	.6
1941.....	10.3	9.7	20.3	10.6	.4
1940.....	9.2	8.6	19.4	10.8	.6
1935.....	6.7	7.5	18.7	11.2	(Z)
1930.....	9.4	9.7	21.3	11.5	.9

Z Rounds to zero.

[1]Includes "error of closure" between censuses (the difference between the population as shown by a census count and the estimate of the population on that date as derived from the previous census count and data on the various components of population change for the intercensal period).

Source: U.S. Bureau of the Census, Current Population Reports, "Estimates of the Population of the United States and Components of Change: 1972 (With annual data from 1930)," Series P-25, No. 499, table A. For 1973, unpublished preliminary estimates, subject to revision.

continued, would have produced an increase in the crude birth rate. Between 1961 and 1968, the crude birth rate declined by 25 percent. The total fertility rate (that is, the sum of age-specific birth rates) dropped from 3,629 to 2,477, or by 32 percent. Further detail on total fertility rates is presented below in the section on "Differential Fertility."

From 1968 to 1970, the annual growth rate turned slightly upward to 10.9, as the birth rate temporarily reversed its downward trend and rose to 18.2. The rise in the birth rate in turn reflected the increasing proportion of the population comprised of females in the prime childbearing ages. This trend in population structure continued from 1970 to 1973; however, the birth rate dropped to 14.9 in 1973, the lowest in American history.

In 1973, the population of the United States increased by an estimated 1,499,000, or by 0.71 percent (table 2.1). The absolute growth was the smallest since 1945 and well below the peak figure of 3,058,000 in 1956. The provisional number of births in 1973 was 3,141,000, which is also the lowest figure since 1945 and more than 1 million under the 1957 peak of 4,332,000.

The annual number of deaths has in general increased since the end of World War II, as the effects of population growth and the rising proportion of the population 65 years old and over have more than offset the declines that have occurred in mortality rates at most ages. Further detail on mortality trends is presented below in the section on "Differential Mortality."

During the 1960's (1960 through 1969), estimated net civilian immigration was 3,822,000, accounting for about 16 percent of population growth. In 1973, estimated net civilian immigration was about 335,000. Although the estimates for 1972 and 1973 are the lowest since 1964, the current decline may well be temporary. Net civilian immigration includes the movement of American citizens, which is subject to wide fluctuation. Recent changes in alien immigration, the major component of civilian immigration, are discussed in further detail in the section below on "International Migration."

Differential Fertility

A long view—time as a variable—For more than two centuries, from the time of the first permanent settlements to the early

decades of the 19th century, the fertility of the American people ranked among the world's highest. Large families were welcome while the relatively empty country was being peopled and while most persons lived on their own land in a self-sufficient economy. Their children in turn had an opportunity to move to virgin land in frontier areas. Fertility was so high that long before the Declaration of Independence in 1776 the population was predominantly native born.

The annual birth rate in the colonial and early federal periods has been estimated in various ways by early observers and modern authorities to have been about 55 births per 1,000 inhabitants, and the death rate was probably less than half as large. The women of completed fertility (those surviving to age 45) are estimated to have borne an average of about eight children (Grabill, Kiser, and Whelpton, 1958, p. 10). The evidence for the high fertility exists in the young age distributions of the population as enumerated in certain colonial censuses and in the first few censuses of the United States, and in the doubling of population every 25 years even in periods when immigration was of trivial magnitude. About half of the white males enumerated in 1790 were under age 16, for example.

Although fertility was high for the United States as a whole, the level differed widely between the longer settled areas and the frontier areas and between town and open country. Data from the same source as those in table 2.3 show that the child/woman ratio was lower in the long-settled New England geographic division in 1800 than in other geographic divisions. Declines occurred on a national basis after 1810. The child/woman ratio of 419 shown for white women in 1940 (which represents a low point in American history) is only 31 percent of the 1800 ratio of 1,342. About half (48 percent) of the long-term decline occurred by 1860; 29 percent occurred between 1860 and 1910; and the remaining 21 percent occurred after 1910. Censuses prior to 1850 did not obtain sufficient detail for the computation of child/woman ratios for Negroes who in 1850 comprised 7.8 percent of the total population. If comparisons of the child/woman ratios for black women are made with those for white women in the 19th century, caution should be exercised in interpreting them as measures of fertility because the ratios for blacks were depressed by high infant mortality.

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Table 2.3 Adjusted Number of Children Under 5 Years Old per 1,000 Women 20 to 44 Years Old by Race: United States, 1800 to 1970

Year	White[1]	Negro[1]	Year	White[1]	Negro[1]
1970.....	507	689	1880.....	780	1,090
1960.....	717	895	1870.....	814	997
1950.....	587	706	1860.....	905	1,072
1940.....	419	513	1850.....	892	1,087
1930.....	506	554	1840.....	1,085	(NA)
1920.....	604	608	1830.....	1,145	(NA)
1910.....	631	736	1820.....	1,295	(NA)
1900.....	666	845	1810.....	1,358	(NA)
1890.....	685	930	1800.....	1,342	(NA)

NA Not available.
[1]Ratios standardized for age of woman and allowance made for undercount in censuses.

Source: Pascal K. Whelpton, Forecasts of the Population of the United States, 1945-1975, U.S. Bureau of the Census; and computations from 1950, 1960, and 1970 censuses.

Figure 2.1 shows that declines in the fertility of the rural population began early and more than kept pace with those in the urban population from 1810 to 1940. The effect of a shift over time from a predominantly rural population to a predominantly urban population can also be seen from the graph, in that the *national* child/woman ratio was close to the rural ratio in the early years and subsequently moved closer to the urban ratio. Thus, fertility declined more rapidly on a national basis than in either of the component urban and rural areas.

The historical trends in fertility can also be examined—for a shorter period of time—in terms of data on children ever born to cohorts of women, from the censuses of 1910, 1940, 1950, 1960, and 1970. Table 2.4 presents such data for women of completed or nearly completed fertility. The data from the 1910 census may be about 10 percent too high for comparisons with later censuses because of a possible inclusion of some stillbirths.

Birth rates by age and race—In the United States, almost all births occur to mothers between the ages of 15 and 44 (figure 2.2). The distribution of birth rates by single years of age is roughly bell-shaped. The rates increase rapidly from age 14 to a mode at age 22 or 23 and then decline less rapidly once the mode is passed.

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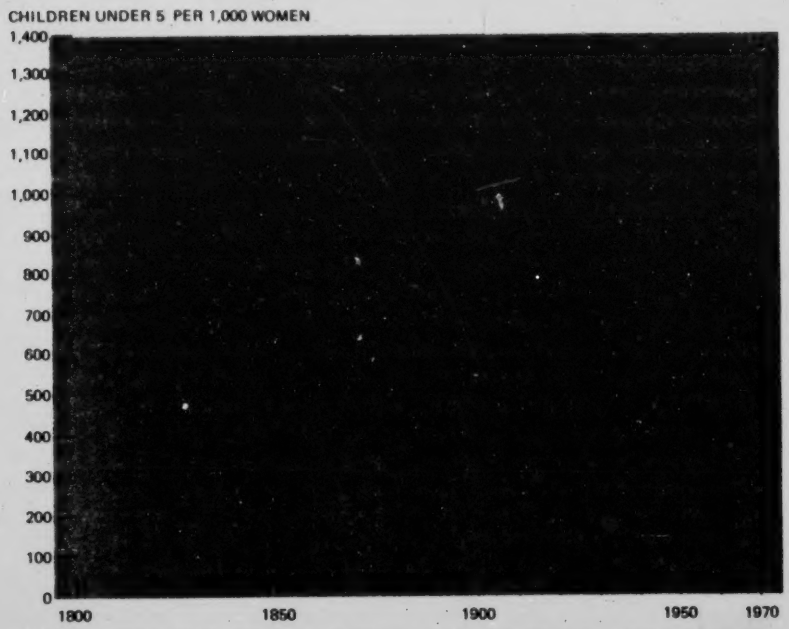
Figure 2.1 Number of Children Under 5 Years Old per 1,000 White Women 20 to 44 Years Old: United States, Urban and Rural, 1800 to 1970



Source: Wilson H. Grabill, Clyde V. Kiser, and Pascal K. Whelpton, 1958, The Fertility of American Women, in the Census Monograph Series, New York: John Wiley and Sons, figure 12; and estimates for 1960 and 1970. Copyright by the Social Science Research Council (New York, 1958). Reprinted by permission.

Except for differences in magnitude, the general pattern is very similar both in years when birth rates are relatively high and in years when the rates are relatively low. In figure 2.2, the curve of birth rates for 1957 reflects the highest rates recorded in the post-World War II period, whereas the curve for 1940 reflects the low rates prevailing toward the end of a severe economic depression.

Table 2.5 lists the "total fertility rate" for selected years. The total fertility rate is the sum of age-specific birth rates and indicates how many children a synthetic group of women surviving to the end of the childbearing ages would have if they were subject to the birth rates prevailing in the specified year. The total fertility rate sometimes reflects a temporarily high (or low) level of birth rates in

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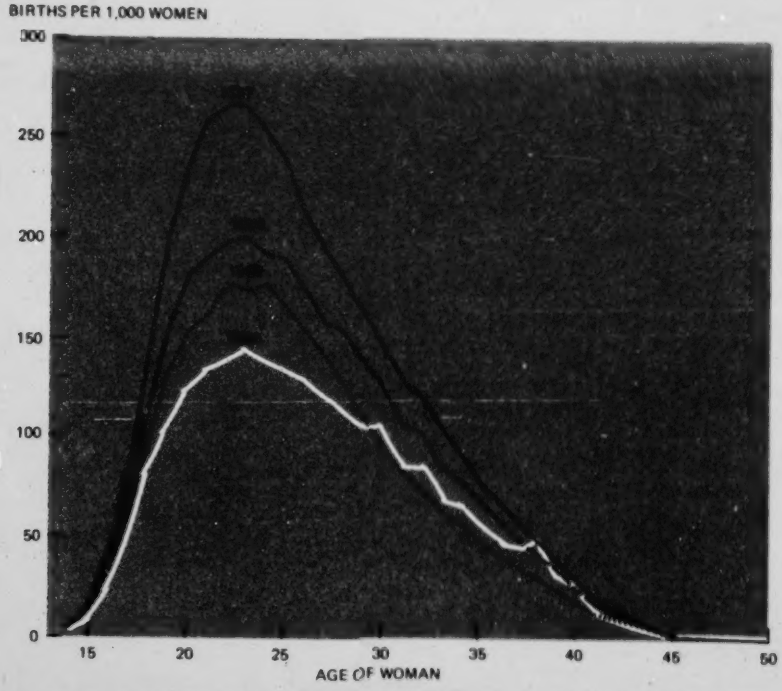
Figure 2.2 **Births per 1,000 Women by Single Years of Age: United States, 1940, 1950, 1957, and 1968**



Source: Birth numerators from U.S. National Center for Health Statistics, 1940ff., **Vital Statistics of the United States**, Vol. I, **Natality**; population bases from U.S. Bureau of the Census, **Current Population Reports**, "Estimates of the Population of the United States, by Single Years of Age, Color, and Sex: 1900 to 1959," Series P-25, No. 311; ibid., "Estimates of the Population of the United States, by Age, Color, and Sex: July 1, 1960 to 1965," Series P-25, No. 321; and ibid., "Estimates of the Population of the United States, by Age, Race, and Sex: July 1, 1967 to July 1, 1969," Series P-25, No. 441.

that year and thus does not always reflect what is happening to real cohorts of women. For example, no national cohort of American women in modern times has had as many children as is implied by the total fertility rate of 3,767 for 1957. The total fertility rate of 1,900 for 1973 is the lowest ever recorded for the United States. It reflects a decline not only in marital fertility but also in the proportion of young women who have married, as well as a reduction in the proportion of older women who are still bearing children.

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Table 2.4 Children Ever Born per 1,000 Women Ever Married, for Women 40 to 44 Years Old by Race: United States, 1880 to 1970

Census year	Year when age 40-44	Children per 1,000 women		
		All races	White	Negro
1970	1970	3,097	3,012	3,795
1960	1960	2,564	2,515	2,949
1950	1950	2,364	2,329	2,619
1940	1940	2,754	2,717	3,012
	1930	3,146	3,106	3,594
	1920	3,395	3,349	4,046
	1910	3,817	3,741	4,892
1910[1]	1910	4,383	4,263	5,484
	1900	4,972	4,817	6,580
	1890	5,266	5,123	6,910
	1880	5,395	5,278	6,947

[1]May include some stillbirths.

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, table 212; 1960 Census of Population, Vol. II, 3A, Women by Number of Children Ever Born, tables 1 and 8; 1950 Census of Population, Vol. IV, 5C, Fertility, tables 1 and 12; 1940 Census of Population: Differential Fertility, 1940 and 1910--Fertility for States and Large Cities, tables 3 and 4, and Women by Number of Children Ever Born, tables 9 and 12.

Table 2.5 Total Fertility Rate: United States, 1920 to 1972

Year	Rate	Year	Rate	Year	Rate
1972	2,025	1964	3,208	1947	3,274
1971	2,277	1963	3,333	1945	2,491
1970	2,472	1962	3,474	1940	2,301
1969	2,447	1961	3,629	Averages:	
1968	2,477	1960	3,654	1935-39	2,235
1967	2,573	1957	3,767	1930-34	2,376
1966	2,736	1955	3,580	1925-29	2,840
1965	2,928	1950	3,091	1920-24	3,248

Source: U.S. National Center for Health Statistics, 1968, Vital Statistics of the United States, Vol. I, Natality, table 1-6; U.S. Bureau of the Census, Current Population Reports, "Fertility Indicators: 1970," Series P-23, No. 36, table 1; and estimates for 1971 and 1972.

Urban-rural variations in fertility—The relatively high cost of rearing a family in a city is commonly regarded as one of the reasons why fertility is lower in urban areas than in rural areas. The cost is especially high in a technically advanced economy where the children need many years of education before they are prepared to compete in a labor market that has few opportunities for unskilled labor. Yet, increasing urbanization of the population and increasing average educational attainment have been accompanied in the post-World War II period by an unprecedented rise in fertility that transformed large cities from a former position of having fertility rates below the replacement level to at least a temporary situation of having rates above replacement. Thus, at the time of the 1950 census, women of recently completed fertility (age 45 to 49) averaged only 1,957 children ever born per 1,000 women in urban areas, or well below the level of 2,240 needed for replacement of the population with the mortality then prevailing. Fertility in 1950 for this age group was lower still in the larger cities, as illustrated by the rate of 1,557 children per 1,000 white women age 45 to 49 in the Nation's capital, Washington, D.C. Since then, there has been a major change.

Table 2.6 presents data from the 1970 census for women 35 to 39 years of age. This cohort of women was at or near the peak with respect to the fertility of recent cohorts; they had already borne more children than women in the next older age group, and yet they had had fewer years in which to bear them. In 1970, white women living in the central cities of urbanized areas (cities of 50,000 or more) had the fewest children, and yet they averaged 2,671 children per 1,000 women, or about 26 percent above replacement needs (2,125) with the mortality then prevailing. Fertility was higher still in the urban fringe, or suburbs, and progressively increased for smaller urban places (under 50,000 inhabitants) and rural areas, reaching 3,461 for women on farms (mostly in the open country). The proportion single and the proportion with fewer than two children diminished as size of place diminished.

Negro women on farms in 1970 were much more fertile than their counterparts a few decades earlier. In 1970, fully 47 percent of the Negro farm women ever married 35 to 39 years of age—with 5 to 10 years of their childbearing period still remaining—had already borne 7 or more children, and their average number of children per 1,000 women ever married was 6,213. In 1950, only

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32 percent of farm women 45 to 49 of races other than white—with virtually none of their childbearing period remaining—had borne 7 or more children, and their average number of children per 1,000 women ever married was only 4,861. The number of black women living on farms in 1970 was only about one-eighth the number in 1950 because of very heavy outmigration of families to nonfarm areas when mechanized cotton pickers and other mechanical devices reduced the need for unskilled farm labor. It is possible that the migration was selective of the less fertile and better educated groups of black women, leaving behind a group that had quite high fertility. Despite the generally high fertility of black women, they had a much larger proportion who remained single than white women and a larger proportion who bore fewer than two children.

Table 2.6 Urban-Rural Variations in Number of Children Ever Born, for White and Negro Women 35 to 39 Years Old: United States, 1970

Race, marital status, and children ever born	Women 35-39 years old	Urbanized areas		Other urban	Rural nonfarm	Rural farm
		Central cities	Urban fringe			
WHITE						
Women.....thous..	4,965	1,284	1,564	732	1,169	217
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0
Single.....	5.4	8.8	4.5	4.4	3.7	3.4
Ever married.....	94.6	91.2	95.5	95.6	96.3	96.6
Ever married.....pct..	100.0	100.0	100.0	100.0	100.0	100.0
No children.....	7.0	9.1	7.1	5.8	5.8	4.8
1 child.....	9.6	11.5	9.1	9.6	8.7	7.0
2-4 children.....	65.0	62.4	67.9	66.3	64.2	61.7
5-6 children.....	13.8	12.6	12.6	13.8	15.6	18.6
7 or more.....	4.7	4.5	3.4	4.6	5.7	8.0
Children ever born per 1,000 women.....	2,920	2,671	2,855	2,976	3,144	3,461
Ever married.....	3,086	2,929	2,990	3,114	3,265	3,584
NEGRO						
Children ever born per 1,000 women.....	3,450	3,155	3,296	3,684	4,587	5,579
Ever married.....	3,822	3,498	3,588	4,119	5,108	6,213

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 3A, Women by Number of Children Ever Born, tables 1 to 4, 6, and 7.

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National origin and fertility—The most relevant statistics from the 1970 census on the fertility of women by national origin are those for the approximately one-fourth of the population who were either born abroad or born of parents from abroad. The cumulative fertility rates shown in table 2.7 shed light on the range of variation in the fertility of first- and second-generation Americans who were enumerated in 1970.

Table 2.7 **Children Ever Born per 1,000 Women Ever Married, for Women of Selected National Origins With Fertility Rates Rising or Declining Between Older and Younger Generations: United States, 1970**

National origin	Fertility rates for women in older generation: Foreign born, 65 and over in 1970	Fertility rates for women in younger generation--of foreign parentage		Ratio of fertility rates of older and younger generations	
		45-54 years old in 1970	35-44 years old in 1970	65 and over / 45-54	65 and over / 35-44
	(1)	(2)	(3)	(1)÷(2)	(1)÷(3)
Women of national origins with rising fertility:					
United Kingdom	2,173	2,531	2,985	0.86	0.73
Ireland	2,913	2,944	3,503	.99	.83
Canada	2,633	2,841	3,297	.93	.80
Germany	2,084	2,611	2,991	.80	.70
Women of national origins with declining fertility:					
Mexico	5,234	4,519	4,437	1.16	1.18
Italy	3,845	2,323	2,722	1.66	1.41
Poland	3,520	2,355	2,761	1.49	1.27
U.S.S.R.	2,585	2,209	2,552	1.17	1.01

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 3A, Women by Number of Children Ever Born, table 12.

Two groups of national origins are shown in the table. The women in the first group have a pattern of rising fertility from the older generation (of foreign-born women) to the younger generation (of daughters of foreign-born parents). The women from the countries of origin in the first group are characterized by relatively low fertility in the older generation and moderate fertility in the younger generation. By contrast, the women in the second set of national origins are characterized by relatively high fertility in the older generation and more moderate to low fertility in the younger generation.

From these illustrative statistics, it is apparent that women in the younger generation, who grew up in the cultural setting of widely differing fertility levels, have tended to converge their fertility levels during their generation in the United States. The effects of their varied backgrounds have meantime been considerably diluted and diffused.

The nature of immigration to this country has changed greatly during the 20th century, and the fertility levels of foreign-born women have changed correspondingly. "Earlier migrants had been largely uneducated and unskilled. The migrants of 1960 included major percentages of the highly educated and the professional. Among younger women, the lowest fertility was that of the foreign born. In general, the fertility of those of foreign or mixed parentage was substantially above that of the foreign born. The highest fertility in the white population as of 1960 was that of the native white women of native parentage" (Taeuber and Taeuber, 1971, p. 444).

Marriage and fertility—Among women 35 to 44 years old in 1970, the median age at first marriage, 20 years, was earlier than that for the 10-year cohorts on either side of them. These women reached 20 years of age between the mid-1940's and the mid-1950's. A substantially larger proportion of the white women 35 to 44 had concentrated their first marriages in the "preferred" age range, 18 to 24 years, whereas Negro women were more likely than white women to have married earlier than 18 or later than 24 (table 2.8). The cumulative fertility rate varied inversely with age at marriage, with those who married before the age of 18 years bearing one to three more children by the age of 35 to 44 than those who postponed marriage until they had reached the age of 25. The largest differences between the fertility of white and black women were those for women who married in their teens. However, as will be shown below, the fertility of college-educated Negro women is lower than that of college-educated white women—and these women generally marry in their twenties; this observation throws light on the fact that the smallest differences in the fertility of white and black women are among those who married for the first time in their twenties.

The relationship between the fertility of women with stable marriages and that of women with broken marriages can be

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Table 2.8 **Percent by Marital Status, and Number of Children Ever Born per 1,000 Women, for Women Ever Married 35 to 44 Years Old, by Age at First Marriage and Race: United States, 1970**

Age at first marriage and race	Women ever married 35–44 years old			Children ever born per 1,000 women--		
	Percent by age at first marriage	Percent living with first husband	Percent divorced	Ever married, age 35-44	Living with first husband	Divorced
White.....	100.0	76.0	5.4	3,045	3,088	2,519
14-17 years.....	17.1	60.5	6.7	3,540	3,631	3,195
18-19 years.....	25.8	72.9	5.7	3,269	3,350	2,780
20-21 years.....	24.1	80.0	5.1	3,084	3,167	2,428
22-24 years.....	19.2	83.6	4.5	2,875	2,958	2,097
25-26 years.....	5.5	84.3	4.6	2,569	2,656	1,670
27-29 years.....	4.1	83.2	5.3	2,266	2,328	1,514
30-44 years.....	4.1	84.1	4.6	1,544	1,516	1,193
Negro.....	100.0	52.2	9.1	3,820	3,945	3,114
14-17 years.....	26.0	42.5	9.6	4,716	5,265	3,834
18-19 years.....	20.9	47.3	10.4	4,259	4,648	3,363
20-21 years.....	18.3	53.7	9.8	3,751	3,934	3,027
22-24 years.....	15.5	57.7	9.1	3,294	3,439	2,568
25-26 years.....	6.0	61.5	7.8	2,907	2,936	1,974
27-29 years.....	5.5	62.1	8.1	2,676	2,606	2,051
30-44 years.....	7.8	69.5	4.4	2,363	2,301	1,917

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 3A, Women by Number of Children Ever Born, table 26.

observed from the statistics in table 2.8. About three-fourths of the white women 35 to 44 were still married and living with their first husband, whereas 5 percent were currently divorced. (Another 11 percent had previously been divorced but were currently remarried or were widowed.) The white women with intact first marriages had a cumulative fertility rate of 3,088, or one-half child more on the average than that for divorced white women, 2,519. This type of fertility differential persisted regardless of age at first marriage. The smaller average number of children for divorced women occurred despite the fact that women with first marriages not intact were selective of those with early marriages, among whom fertility rates tend to be higher than those for women with later marriages.

A similar pattern but a consistently larger differential in fertility was found among Negro women. Only about one-half of the black women were still married and living with their first husband by age 35 to 44, and 9 percent were currently divorced (another 14 percent being previously divorced). The average number of children was close to one less among the divorced Negro women of each age at marriage than among those with intact first marriages.

In 1970, women classified as separated (because of marital discord) accounted for only 2 percent of the white women but 16 percent of the black women 35 to 44. The average number of children was about the same for the separated women as for women living with their first husband. Thus, separated women tended to have more children than divorced women; this finding is probably related to the fact that a larger proportion of women who remain separated rather than become divorced are from the ranks of the lower socioeconomic levels, among whom fertility rates are relatively high. Moreover, one probable reason why a relatively small proportion of women with many children become divorced is the fact that having many children tends to be a hindrance to remarriage.

Childspacing—American women currently have about one-half of their children by the time they have been married 5 years. Stated another way, about half of the Nation's births in 1980 can be expected to come from women who will not be married in 1975. Moreover, women who marry between 1975 and 1980 may develop different desires with regard to family size than they had before they married. Facts such as these must be recognized as difficulties facing those who make birth projections that are used to estimate population in future years.

In terms of cumulative births by 5 years after the marriage began, including births before marriage, women who first married in 1955-59 and in 1960-64 set new records for modern times, as is exemplified by the data for white women in figure 2.3. (The data were adjusted to include estimated complete experience for cohorts whose experience was incomplete at the survey date.) Women in these marriage cohorts had higher fertility rates than any other marriage cohort back to 1900-09, if not earlier. In contrast, the fertility of the 1965-69 marriage cohort is much lower but still is far ahead of that for the economic depression cohorts of the 1930's.

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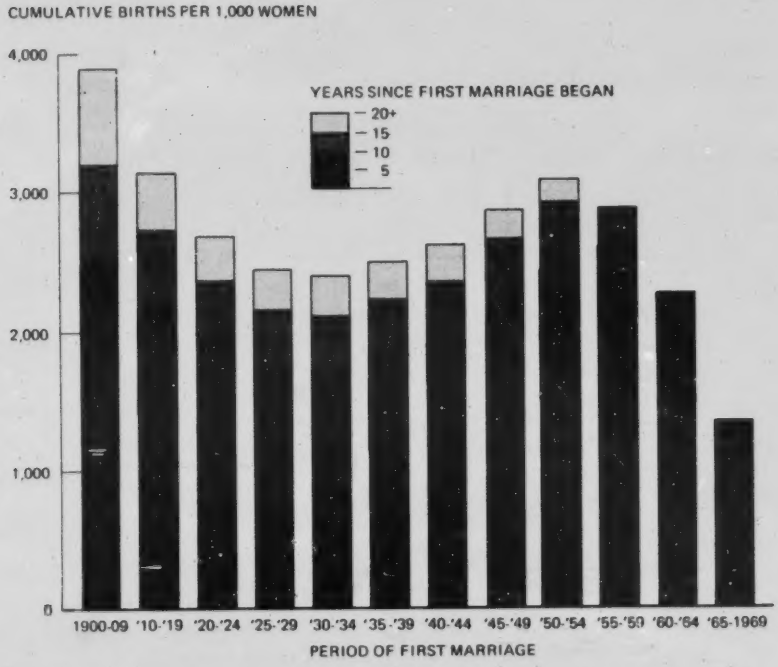
The progression of fertility rates for marriage cohorts takes on a different perspective, however, when one looks at data for intervals beyond 5 years after the marriage began. Some of the cohorts before 1955 had more births in the intervals 5 to 9 years and 10 to 14 years than the cohort of 1955-59, even though they had borne fewer children within the first 5 years after marriage. It presently appears that the marriage cohort of 1950-54 will have more children by the end of childbearing than any other recent marriage cohort; the younger cohorts are more severely curtailing their childbearing.

Figure 2.3 **Cumulative Births per 1,000 White Women by Successive Intervals Since First Marriage Began, for Women Ever Married Who Had Married in 1900-1909 to 1965-1969: United States**



Source: U.S. Bureau of the Census, **Current Population Reports**, "Marriage, Fertility, and Childspacing: August 1959," Series P-20, No. 108; ibid., "Marriage, Fertility, and Childspacing: June 1965," Series P-20, No. 186; and ibid., "Fertility Histories and Birth Expectations of American Women: June 1971," Series P-20, No. 263.

Table 2.9 presents illustrative data (from the August 1959 and June 1965 Current Population Surveys) that indicate spacing patterns of births occurring in 1940-44, when fertility was moderately low, and in 1960-64, when fertility was moderately high. (Childspacing data collected in the June 1971 Current Population Survey had not been published when this monograph was completed.) The 1959 and 1965 data indicate that the great majority of births occur within a few years of a previous vital event (marriage or childbirth). Thus, over 80 percent of first births to white women in 1960-64 occurred within 3 years (36 months) after the first marriage, and within 24 months for women of Negro and other races. Among whites and Negroes alike, the births of over 80 percent of the second children in 1960-64 occurred within 4 years after the birth of the first child.

Relatively long median spacing intervals (32 or 34 months) are shown for the third child of white women. (Other data, not shown, exhibit shorter spacings for births of higher order.) That pattern probably reflects a stretched out spacing where the third child is the final one, a common occurrence among whites. The "last" child of any birth order is typically born after a longer spacing interval, on the average, than are children of the same birth order whose mothers go on to have yet more children.

A special aspect of childspacing is the proportion of first children who are born soon after marriage. A recent study made by the National Center for Health Statistics (1964-66) found that 22 percent of the first children were born before the mothers had been married 8 months. Such mothers were heavily overrepresented by women in their teens, 42 percent of whose first children were born before they had been married 8 months, and by women in the lower income and education levels.

Illegitimate births—Since most illegitimate children are born to women who have never married but who will eventually marry, data on illegitimate births may be regarded as that part of the discussion of childspacing which relates to the spacing that occurs before first marriage.

In the United States, as in much of the rest of the world, illegitimacy of births has historically tended to carry a social stigma which was especially strong among persons in the middle and upper social groups. Partly for that reason, 10 States in the United States do not permit the inclusion of a question on legitimacy on their

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Table 2.9 Cumulative Percentages of Births in Selected Years by Interval Since Marriage of Mother or Since Birth of Preceding Child by Order of Birth and Race: United States, 1940 to 1964

Race and interval (cumulated)	Year of birth of--					
	First child (by interval since mother's first marriage began)		Second child (by interval since birth of first child)		Third child (by interval since birth of second child)	
	1960-64	1940-44	1960-64	1940-44	1960-64	1940-44
WHITE						
12 months	[1]41.1	[1]24.2	4.9	2.9	3.8	4.2
24 months	72.5	57.1	45.4	32.1	36.0	30.7
36 months	84.3	73.5	70.1	55.3	56.6	52.8
48 months	89.5	82.3	83.1	71.1	70.0	66.1
60 months	92.3	87.9	89.1	80.2	78.9	75.6
120 months	98.2	97.1	99.7	96.2	95.3	94.5
121 months	100.0	100.0	100.0	100.0	100.0	100.0
Median months	14.2	20.2	25.7	32.8	31.7	34.0
	1955-64	1940-44	1955-64	1940-44	1955-64	1940-44
OTHER						
12 months	64.8	53.5	8.0	6.7	7.7	4.5
24 months	82.3	78.1	51.6	43.6	51.7	48.7
36 months	88.5	88.6	70.8	64.0	71.9	74.6
48 months	91.6	92.8	81.7	78.3	81.8	85.3
60 months	93.6	94.3	86.1	85.3	86.6	91.6
120 months	98.1	96.5	97.2	92.6	97.3	98.7
121 months	100.0	100.0	100.0	100.0	100.0	100.0
Median months	7.6	10.7	23.1	27.3	23.0	24.1

[1] Includes births before marriage of ever-married mother.

Source: U.S. Bureau of the Census, Current Population Reports, "Marriage, Fertility, and Childspacing: August 1959," Series P-20, No. 108, tables 27 and 30; ibid., "Marriage, Fertility, and Childspacing: June 1965," Series P-20, No. 186, tables 24 and 25; and Census Bureau records.

birth registration records. However, 40 States do ask such a question, and estimates are available for the other States from such clues as the absence of the name of a father on the birth record or from different surnames for the mother and the father. However, the available data on illegitimate births are thought to underestimate the true numbers.

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The birth registration data suggest that between 1920 and 1940 the proportion of births classified as illegitimate changed very little, but sizable increases occurred thereafter. In 1940, there were only 7 births per 1,000 unmarried women 15 to 44 years old as compared with 24 per 1,000 in 1968 for all races combined. By 1968, 5 percent of white births and 31 percent of births of other races were illegitimate (table 2.10).

Almost half of the 339,200 illegitimate births in the United States in 1968 occurred to teenage mothers, and yet the illegitimate birth rate for teenage women was below the average for women of all ages. As may be seen from table 2.10, the illegitimate birth rate per 1,000 unmarried women was about twice as high for women in their twenties as for women in their teens.

Table 2.10 Incidence of Illegitimate Births by Birth Order and Race, 1968, and Illegitimate Birth Rates, 1940 to 1968, by Age of Mother: United States

Age of mother and order of birth	Illegitimate births as percent of total births, 1968			Illegitimate births per 1,000 single, widowed, or divorced women			
	All races	White	Other	1965	1960	1950	1940
Total, 15-44....	9.7	5.3	31.2	24.1	21.8	14.1	7.1
Under 15 years.....	81.0	61.0	90.8	(NA)	(NA)	(NA)	(NA)
15-19 years.....	26.7	15.8	55.0	19.8	15.7	12.6	7.4
20-24 years.....	8.3	5.1	26.4	36.1	40.3	21.3	9.5
25-29 years.....	3.9	2.0	16.8	39.4	42.0	19.9	7.2
30-34 years.....	4.1	2.0	15.5	27.6	27.5	13.3	5.1
35-39 years.....	4.7	2.4	15.7	14.6	13.9	7.2	3.4
40-44 years.....	5.1	2.8	15.7	3.7	3.6	2.0	1.2
First child.....	16.2	10.2	48.1	(NA)	(NA)	(NA)	(NA)
Second child	6.1	2.5	28.0	(NA)	(NA)	(NA)	(NA)
Third and higher....	5.5	2.2	18.8	(NA)	(NA)	(NA)	(NA)

NA Not available.

Source: U.S. National Center for Health Statistics, 1968, Vital Statistics of the United States, Vol. I, Natality, tables 24 to 26, and 48.

Family planning practices–One of the major factors that has been affecting recent fertility in the United States has been the widespread knowledge and acceptance of modern methods of contraceptive family planning and limitation. The increasing sophistication and effectiveness of modern contraception and its almost universal social and personal acceptance mean that more and more families will be of the size desired by the parents and that accidental and unwanted pregnancies will be minimal. Recent legal decisions favoring the availability of abortion and its increasing (if by no means universal) public acceptance will be a further factor keeping family size in line with parental goals.

Most of the information presently available on family planning in the United States comes from sample surveys conducted by private research organizations. The first nationwide sample survey, based on interviews with 2,713 white wives 18 to 39 years old, was conducted in 1955 (Freedman, Whelpton, and Campbell, 1959). This survey found that virtually all couples either used contraception at some time or were subfecund. About half of the married couples did not begin to use contraception until after at least one pregnancy; 18 percent waited until after two or more pregnancies. The five most common methods of contraception employed in 1955 were condom (30 percent), diaphragm (25 percent), rhythm (24 percent), douche (20 percent), and withdrawal (11 percent). These percentages were computed separately for each method; some couples used different methods at different times or more than one method at the same time.

Other nationwide surveys in 1960, 1965, and 1970 included questions on family planning, each one improving on the types of information previously available. The 1970 National Fertility Survey of approximately 6,000 currently married women found clear evidence that the United States was continuing its movement into the modern contraceptive era in rapid fashion during the 1960's. (A preliminary report on this Survey is given in Ryder, 1972.) The contraceptive pill, first licensed in 1960, was used by about 3 percent of currently married women under 35 in 1961. By mid-1967 usage had reached a peak of about 30 percent. By 1970 there was a slight decline in usage, probably because of adverse publicity concerning morbidity associated with use of the pill. Although no more recent nationwide survey results on use of the pill were available as of early 1974, some informed persons had the impression that use of the pill was again on the increase.

Intrauterine devices (IUD's) were in use by 6 percent of white married women under 35 in 1970 and 5 percent of other married women of comparable age. There was a rapid rise in the use of the IUD from 1965 to 1970; it might eventually replace the condom as one of the three most popular methods of fertility control, along with the pill and voluntary sterilization.

The 1970 National Fertility Survey also found that the proportion of couples who had had sterilizing operations was much higher than that found in the 1965 study. For example, among white wives 35 to 39 years of age in 1970 an estimated 18 percent had been sterilized as compared with 11 percent for the comparable age group in 1965; for blacks, the corresponding figures were 20 percent in 1970 and 12 percent in 1965. Data from a private survey made in 1970 indicate that two out of every three couples who intended to have no more children (even though they were presumably capable of doing so) included a husband or wife who had already been sterilized or who were willing to give serious consideration to having the husband or wife sterilized (Presser and Bumpass, 1972).

Another finding of the 1970 National Fertility Survey was that 13 percent of births occurring to white women in 1966 to 1970 were unwanted and that 42 percent were unplanned. Among blacks the figures were 27 percent unwanted and 61 percent unplanned. The study also found, however, that the percentage of unwanted and unplanned births showed a strong inverse relationship to the amount of education. In view of this fact and the fact that family planning practices tend to diffuse to other population segments, it seems likely that as the educational level continues to rise the number of unwanted and unplanned births will tend to decline throughout American society in future years.

Socioeconomic variations in fertility—In general, the upper socioeconomic groups in the United States have spearheaded the Nation's shift toward lower fertility and have still retained the distinction of having the lowest fertility rates. This pattern has exceptions, however, such as the positive correlation between fertility and socioeconomic level when certain key variables are controlled. In the following sections, the current differences in fertility among social and economic groups will be discussed, largely on the basis of data from the 1970 census.

Education of woman—Since early in the 19th century, the education of the young has been a national goal pursued with the sanction of the State and local legislative agencies and with the expenditure of vast amounts of public and private funds. But yet the amount of education which people receive has varied greatly, not only according to their ability to learn but also according to the personal, family, and community goals that are established and the amount of economic resources set aside for the achievement of these goals.

In this context, the level of education of women continues to be one of the most significant variables associated with differences in fertility level. Figure 2.4 shows clearly that cumulative fertility rates are lower, on the average, for women of higher educational attainment than for other women. Prolonging the number of years in school generally is associated with delay in marriage and childbearing. However, the inverse relationship between education and cumulative fertility does not disappear with the passage of time, even for women who have come to the end or near the end of their childbearing years. This relationship is true regardless of whether the woman is white, Negro, or of Spanish origin. Moreover, those with a high level of education tend to have a relatively high economic status.

One of the consequences of this education-economic-fertility pattern is that those who are in a better financial position to meet the expenses of rearing children are precisely the ones who, on the whole, are having fewer children to rear. There have been some exceptions to this rule in the past among certain identifiable subgroups of the population. For example, in past years Catholic women educated in Catholic colleges have had higher fertility than Catholic women without a college education. But this has been true only of women educated in Catholic institutions of higher education. Catholic women educated in other colleges and universities show the same tendency to have relatively low fertility as women who are not Catholics (Westoff and Potvin, 1967).

A comparison of the upper and lower readings of the bars in figure 2.4 shows that women 35 to 44 years of age in 1970 had already borne more children than women 45 years old and over, even though the younger women still had a few more years in which to have additional children. These contrasting results reflect the fact that the younger women were at the height of childbearing during the 1950's when birth rates were at or near a peak.

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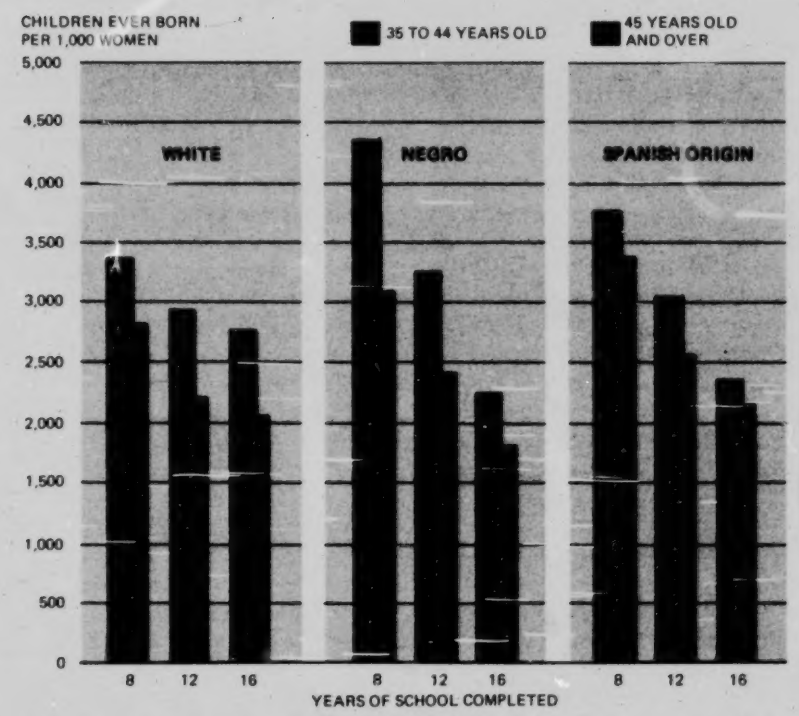
Figure 2.4 Children Ever Born per 1,000 Women Ever Married, by Ethnic Group, Age, and Selected Educational Levels: United States, 1970



Source: U.S. Bureau of the Census, **1970 Census of Population**, Vol. II, 3A, **Women by Number of Children Ever Born**, tables 36 to 38.

The older women of Spanish origin had the highest fertility of any ethnic group shown in figure 2.4 at each educational level. However, among the younger women, Negroes had the highest fertility, except for those with 16 years of school (college graduates)—who had the lowest fertility. Thus, the range of difference in nearly completed fertility among the three educational levels shown is currently greatest for Negro women. The younger women college graduates of Spanish origin also have lower fertility than younger white women college graduates.

These impressive findings suggest that white women college graduates are less committed to a small family size than their counterparts in the other ethnic groups. One related factor is a wide

difference in labor force participation among the three groups. Thus, fully seven out of every eight black women college graduates 35 to 44 years old in 1970 were in the labor force, as compared with only a little over one-half of the corresponding group of white women (Census, 1970, II-5B, table 6). And, as indicated in the section below on "Employment of woman," those who work outside the home tend to have smaller numbers of children than other women.

Because college-educated women usually marry at an older age than other women, they reach the height of their childbearing at an older age. For this and possibly other reasons, among women in their thirties, those who are college-educated have the highest *current fertility rate* (in terms of the number of children under 5 years old per 1,000 women); however, among women under 25, those who have not graduated from high school have the highest current fertility rate (Census, **Current Population Reports**, 1969b, table 3). And yet, college-educated women have the lowest *cumulative fertility rate*, in terms of the number of children ever born per 1,000 women, at each age during the reproductive period.

Employment of woman Recent years have brought a major advance in the understanding of the role of women in modern American society. Traditionally, most women have been expected to find their personal fulfillment as a wife and a mother. If a woman did work, she would generally do so because of financial necessity or would limit her labor force participation to a few years before marriage or a few years after the crucial years of child-rearing. Various factors, not the least of which is the higher level of education for women, have recently brought considerable change in this pattern for an increasing number of American women.

The level of participation in the labor market by women as charted by recent decennial censuses and the Current Population Survey shows a steady rise during the last two decades. In 1950, 26 percent of ever-married white women 15 to 44 years of age were reported as being in the labor force. By the time of the 1960 census the proportion had risen to 34 percent and, according to the Current Population Survey in 1972, the figure stood at 45 percent. For ever-married women of Negro and other races 15 to 44 years of age, the corresponding proportions in the labor force were considerably higher: for 1950, 41 percent; for 1960, 47 percent; and for 1972, 58 percent.

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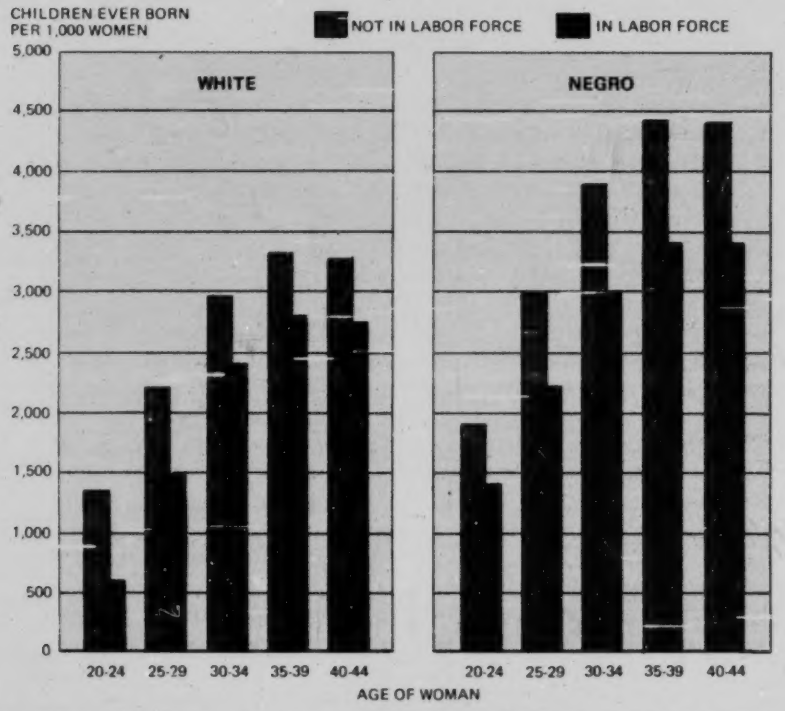
Figure 2.5 charts the markedly lower fertility associated with participation in the labor force among women 20 to 44 years old in 1970. The difference between the fertility of white women who worked and those who did not was greater among the women in the prime years of childbearing (their twenties) than among those who were past this period (in their thirties and early forties). The women who had passed the prime years of childbearing averaged about half a child less per white woman and about one child less per black woman for those in the labor force than for those not in the labor force.

Figure 2.5 **Children Ever Born per 1,000 Women Ever Married, by Race, Age, and Labor Force Status: United States, 1970**



Source: U.S. Bureau of the Census, **1970 Census of Population**, Vol. II, 3A, **Women by Number of Children Ever Born**, table 44.

The simple fact of employment outside the home is only one of the reasons why working women have fewer children. Probably more of the working women than women who do not work are

unable to bear children. For those who can bear children, the restriction that outside work does, or could, place on the time available for childrearing is probably one of the more important considerations in restricting fertility. But, in addition, values and motives which lead many women to enter the labor market may also induce them to have fewer children than those whose role is more intimately identified with being wife and mother. Conversing about their family problems with other women at their place of work may reinforce these subjective inclinations. Given the upward trend in the education of women, which increases their employability, and given the increasing emphasis on woman's equality with man, the likelihood is that still more women will be seeking independent occupational careers and in the process will complete their reproductive period with lower fertility than at present.

Occupation of husband and woman—Perhaps the chief way in which education transforms itself into an economic advantage is through the kind of employment opportunities that are available to the person. Certain types of work, almost by definition, require long years of schooling. Doctors, lawyers, and university professors are examples which come readily to mind. Other types of jobs, expecially managerial and technical positions which might possibly be learned with on-the-job training, are increasingly being filled by persons who have also completed 4 years of college and often some postgraduate study. Usually proprietary positions also require several years of preparation, in this instance for the accumulation of capital with which to acquire property. The professional, administrative, and technical positions are normally rewarded with higher wages and salaries than the less technical and less skilled positions.

Table 2.11 relates to women 35 to 44 years of age, whose fertility is largely complete and whose husbands have had time to settle into lifetime careers. It shows how fertility is related to the occupational level of the husband. Of course, each major occupation group covers a very wide variety of jobs, but the ordering of the groups represents a rough attempt to establish a hierarchy in terms of overall earnings.

The data reveal that women near the top of the list—who generally have larger family incomes from the better occupational positions of the better-educated husband and/or wife—are more likely than those farther down the list to have fewer children on which to expend their income. This is true regardless of race and

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regardless of whether the occupation of the employed husband or the occupation of the employed wife is considered. An exception is the relatively small number (less than 5 percent) of women whose husbands are service workers, such as policemen, firemen, guards, bartenders, barbers, porters, or janitors; many of these men have irregular working hours and other special circumstances surrounding their employment.

Table 2.11 Children Ever Born per 1,000 Wives by Major Occupation Group of Employed Husband and per 1,000 Employed Women Ever Married by Major Occupation Group, for Women 35 to 44 Years Old by Race: United States, 1970

Major occupation group	Children ever born per 1,000 wives, by occupation of husband		Children ever born per 1,000 women ever married, by occupation of woman	
	White women	Negro women	White women	Negro women
Total employed	3,076	3,872	2,752	3,375
Professional, technical, and kindred workers	2,883	2,699	2,593	2,472
Managers and administrators, except farm	2,941	2,953	2,547	2,681
Salesworkers	2,891	2,898	2,873	3,183
Clerical and kindred workers	2,840	3,160	2,505	2,812
Craftsmen, foremen, and kindred workers	3,119	3,776	2,788	3,133
Operatives, except transport	3,179	4,033	2,916	3,508
Transport equipment operatives	3,295	3,986	3,471	3,855
Laborers, except farm	3,367	4,255	3,055	3,853
Farmers and farm managers	3,578	5,891	3,339	3,923
Farm laborers and farm foremen	4,296	6,206	3,804	5,290
Service workers, including private household	3,018	3,531	3,198	3,757

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 3A, Women by Number of Children Ever Born, tables 46, 47, and 49.

The association between fertility and occupation is not as distinct as the association between fertility and education. In this context, the fact is relevant that the number of years of education is not the sole criterion for obtaining employment in a given occupation; moreover, the combination of occupations into major groups tends to blur many of the interesting distinctions which could be made if space permitted the analysis of fertility by

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detailed occupational categories of women and their husbands. To illustrate, white physicians, who are among the highest paid groups in the country, have a fertility level which is well above average (the rate of children ever born per 1,000 white wives 35 to 44 years of age who are married to physicians is 3,227); Negro physicians, on the other hand, show fertility levels close to the average for all Negro professionals.

Income of husband—In view of the general tendency for the fertility of women to be inversely related to the occupational level of their husbands, it is not surprising that, in general, fertility is also inversely related to the income level of their husbands. This relationship, shown in table 2.12, is stronger among Negro women than among white women whose family building was nearly complete.

Table 2.12 **Children Ever Born per 1,000 Wives 35 to 39 Years Old, by Income of Husband in 1969 and Race: United States, 1970**

Income of husband in 1969	White	Negro	Income of husband in 1969	White	Negro
Total.....	3,116	3,851	$4,000-$4,999.....	3,315	4,061
			$5,000-$6,999.....	3,150	3,761
Income of husband:			$7,000-$9,999.....	3,082	2,473
None.....	3,168	3,870			
$1-$1,999 or less...	3,322	4,652	$10,000-$14,999....	3,083	3,288
$2,000-$2,999.....	3,509	4,888	$15,000-$24,999....	3,037	2,797
$3,000-$3,999.....	3,430	4,593	$25,000 and over...	3,082	2,742

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 3A, Women by Number of Children Ever Born, tables 50 and 51.

In 1970, less than one-half of the families with the wife in the reproductive period of life had the husband as the only earner of income. The wife was an earner in seven out of every eight husband-wife families with more than one earner. The median earnings of the wife were about $3,200, and husbands with wives in this income range had a median income of $7,200 (Census, 1970, II-8A, table 1). Although the standing of a husband-wife family in the community may tend to be determined more often by the income of the chief income recipient in the family (the husband in nine-tenths of these families) than by the total family income, now that so many of the families have two or more earners during the family-building period, the use of family income is a better measure than the income of the chief income recipient for appraising the financial ability of the family to meet its members' needs.

Income of family—Table 2.13 features differences in fertility according to the amount of family income for two groups classified by socioeconomic status and age at marriage. The two groups were selected to represent extremes of high propensity to childbearing and low propensity to childbearing. The additional factors of race and labor force participation are introduced to isolate further the types of demographic characteristics that tend to influence the level of fertility. The fertility rates in the table may be compared with the average of 3,047 children ever born per 1,000 white women ever married 35 to 44 years old, and 3,817 for corresponding Negro women.

The first group is characterized by uniformly higher fertility rates than the second group, within each income, race, and labor force participation category. The lower status white women have had one more child, on the average, than the upper status white women, whereas the corresponding gap for black women is three children. The fertility rates range from a very high level of about six children per woman for Negroes not in the labor force among those in the lower status group to a very low rate of only two children per woman for Negroes in the labor force among those in the upper status group. Thus, the lower status black women had higher rates than their white counterparts, and yet the higher status black women had lower rates than their white counterparts.

In the first group, the fertility rates by family income level followed a uniform pattern of a larger number of children for women in the two highest income intervals than for women in one or more lower income intervals. This finding illustrates the reverse "J-shape" pattern of fertility; where this occurs, women evidently tend to have more children than the average for women of all income levels when their family income has risen above the level where they can maintain a comfortable standard of living even if their family tends to be relatively large. For these lower status women, the range of alternatives to the role of wife and mother is surely more limited than that for upper status women and must be especially limited for those not in the labor force.

In the second group, where all of the fertility rates were low, certain groups manifested a positive relation between fertility and income, whereas other groups manifested the more customary inverse relation. Thus, fertility actually increased consistently as family income increased for upper status white wives who were not in the labor force. At the same time, fertility consistently decreased

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as family income increased among the upper status Negro women in the labor force; a similar inverse relation between fertility and family income also occurred among the nine-tenths of upper status white women in the labor force with family incomes of $10,000 and over. To repeat, these opposing tendencies occurred in the context of relatively low fertility throughout the entire group of upper status families that were involved.

Table 2.13 Children Ever Born per 1,000 Women Ever Married 35 to 44 Years Old, for Wives of Household Heads by Education, Occupation, and Family Income Level, and by Labor Force Status, Age at First Marriage, and Race of Wife: United States, 1970

Subject	White wives		Negro wives	
	Not in labor force	In labor force	Not in labor force	In labor force
Lower status and early marriage[1]	3,942	3,317	5,587	4,951
Family income under $4,000	4,439	3,516	6,083	5,257
$4,000-$5,999	4,119	3,619	5,513	4,972
$6,000-$7,999	3,912	3,611	5,222	5,181
$8,000-$9,999	3,841	3,336	[2]5,336	4,838
$10,000-$14,999	[2]3,826	[2]3,220	5,643	[2]4,838
$15,000-$19,999	3,986	3,324	6,059	4,925
$20,000 and over	4,279	3,403	6,412	5,321
Higher status and late marriage[3]	2,911	2,439	2,525	2,013
Family income under $8,000	2,694	2,382	(Z)	(Z)
$8,000-$9,999	2,752	2,462	2,606	2,760
$10,000-$14,999	2,818	2,546	[2]2,469	2,040
$15,000-$19,999	2,850	2,481	3,032	1,955
$20,000 and over	[2]3,040	[2]2,350	2,366	[2]1,907

Z Base fewer than 400 women.

[1]Neither husband nor wife high school graduate; husband blue-collar or service worker; and wife 14 to 21 years of age at first marriage.

[2]Rate based on the largest number of women in the distribution.

[3]Both husband and wife 1 or more years of college; husband white-collar worker; and wife 22 years of age or over at first marriage.

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 3A, Women by Number of Children Ever Born, table 57.

These findings support the conclusion that people vary greatly in the extent to which they determine the number of their children

according to their means to provide for their children's welfare. For example, working mothers, who must spend many hours each week at their place of employment, do tend to have fewer children to care for than women who do not work outside the home. Well-educated women also tend to have lower fertility than women with less education. Both working women and well-educated women, regardless of the size of their family income, are most likely to be well-informed about and receptive to the means of family limitation through conversations at work or through reading and social activities. Thus, the amount of family income is only one of many variables that are related to fertility rates.

Prospects for the fertility of American women—Assuming that married couples will be able to bring their fertility performance increasingly into line with their plans and desires, an important element in understanding and projecting future fertility is determining how many children people plan ultimately to have. To illuminate this issue, the question of "ideal family size" has been asked in various private polls and surveys in the United States for more than 30 years. Some leading demographers now consider that a more realistic question for determining plans regarding future fertility is to ask about "additional births expected." Table 2.14 shows results obtained by asking the latter question in private surveys conducted in 1955 and 1960 and in governmental surveys conducted in 1967, 1972, and 1973 by the U.S. Bureau of the Census. (Blake, 1966, charts family size ideals in the United States since 1936, and Ryder and Westoff, 1967, raise some problems with the use of data on birth expectations.)

The recent striking decline in fertility performance is matched by a drop in the fertility expectations of American wives. Table 2.14 shows that in 1955 American wives, regardless of age, expected an average family size of about three children per currently married woman. The expectations were the same or slightly higher in 1960 after the peak fertility years in the late 1950's. Even as late as 1967, wives 25 to 39 years of age who reported on their expectations were expecting to have an average family size in excess of three children. These expectations of eventual family size naturally have to take into account fertility already accomplished, and this fact is reflected in the much higher expectations of the Negro wives over 30 years of age.

The years since 1967, however, have been a period in which social movements and values, especially regarding the social role of

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women, have led to a very sharp drop in birth expectations among American wives in their late teens and twenties. In 1972, white wives under 30 years of age reported that they expected 2.2 to 2.4 children per family, which means one-half a child less per family than was expected in 1967 by women of comparable age at that time. The corresponding drop in expectations recorded for Negro wives appears to be nearly as great as that among whites. There has also been a recent drop in expectations among white and Negro wives 30 to 34 years of age.

Table 2.14 Actual or Expected Lifetime Number of Children Ever Born per Wife, for White and Negro Women by Age: United States, 1955 to 1973

Race and year of survey	Age of wife			
	18-24 years	25-29 years	30-34 years	35-39 years
WHITE				
1973	2.3	2.4	2.8	3.2
1972	2.2	2.4	2.8	3.2
1967	2.9	3.0	3.2	3.2
1960	3.0	3.3	3.2	3.0
1955	3.2	3.1	3.0	2.9
NEGRO				
1973	2.3	2.8	3.3	3.9
1972	2.1	2.8	3.7	4.0
1967	2.8	3.4	4.3	4.2

Source: Data for 1955, 1960, and 1967 from U.S. Bureau of the Census, Current Population Reports, "Fertility Indicators: 1970," Series P-23, No. 36, table 29. Data for 1972 and 1973 from U.S. Bureau of the Census, Current Population Reports, "Birth Expectations and Fertility: June 1972," Series P-20, No. 248, table 1; and ibid., "Birth Expectations of American Wives: June 1973," Series P-20, No. 254, table 1.

White women 35 to 39 years old in 1973 reported that they expected 3.2 children, on the average, and this is exactly the number expected by virtually the same cohort 18 years earlier in 1955 (among those 18 to 24 years of age in 1955). The rise since 1955 in the expected eventual number of children for women 35 to 39 years old largely reflects the rise during this period in the number of children already born before the survey date. Thus, the women who were 35 to 39 years old in 1955 had experienced their peak years of fertility in the later years of the depression of the 1930's, whereas the women of this age range in 1973 had been in

their twenties during some of the highest years of fertility in recent U.S. history.

The data under discussion are the reported expectations of women who were living with their husband as of the survey date. Single women as well as women who were separated, widowed, or divorced are not included in the samples. This means that when all women are taken into account, the eventual number of births "expected" per woman in 1973—including single as well as ever-married women—is essentially at the replacement level of approximately 2.1 children per woman for the younger cohorts.

Additional, though highly tentative, evidence of the continuing decline in birth expectations is provided by a recent study of wives who were interviewed in June of both 1971 and 1972. There was an overall lowering of expectations among these women in that 1-year period. Most of the women who were matched in the study gave the same answer on both occasions. But the large majority of those who did change their expectations changed them in the direction of lower fertility (Wetrogan, 1973).

Differential Mortality

Historical decline in mortality—With the development and application of modern biomedical knowledge, the death rate declined sharply in the United States during the first half of the 20th century. The decline in the death rate during that period was pronounced among children and young adults, but the rate also went down substantially at older ages as well. This general pattern has continued since 1950 with a noteworthy exception, namely, a reversal in the trend for males in their late teens and early twenties. For these young men, the death rate increased 12 percent between 1950 and 1969 largely because of the rise in mortality through motor vehicle accidents, homicide, and war.

During the first half of the century, many of the contagious diseases were brought increasingly under control, and this change was particularly effective in reducing infant, childhood, and maternal mortality. Since 1950, further progress was made in reducing these types of mortality, but a larger proportion of serious illness occurred among persons in the older age groups and involved the need for continuing treatment, which is often quite expensive, especially for persons in the disadvantaged and underprivileged groups.

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Table 2.15 **Death Rates per 1,000 Population by Selected Age Groups: Death-Registration States, 1900 to 1930, and United States, 1940 to 1969**

Year and sex	All ages	Under 1 year	1-4 years	15-24 years	45-54 years	65-74 years	85 and over
1969.....	9.5	21.5	0.9	1.3	7.3	37.4	190.8
Male.....	11.0	24.2	.9	1.9	9.6	50.3	195.5
Female.....	8.1	18.6	.8	.7	5.1	27.1	188.0
1965.....	9.4	24.1	.9	1.1	7.4	37.9	202.0
1960.....	9.5	27.0	1.1	1.1	7.6	38.2	198.6
1950.....	9.6	33.0	1.4	1.3	8.5	41.0	202.0
Male.....	11.1	37.3	1.5	1.7	10.7	49.3	216.4
Female.....	8.2	28.5	1.3	.9	6.4	33.3	191.9
1940.....	10.8	54.9	2.9	2.0	10.6	48.4	235.7
1930.....	11.3	69.0	5.6	3.3	12.2	51.4	228.0
1920.....	13.0	92.3	9.9	4.9	12.2	52.5	248.3
1910.....	14.7	131.8	14.0	4.5	13.7	55.6	250.3
1900.....	17.2	162.4	19.8	5.9	15.0	56.4	260.9
Ratio:							
1969/1950...	.99	.65	.64	.0	.86	.91	.94
1900/1950...	1.79	4.92	14.14	4.54	1.76	1.38	1.29

Source: U.S. National Center for Health Statistics, 1965, Vital Statistics of the United States, Vol. II, Mortality, table 1-3; Robert D. Grove and Alice M. Hetzel, Vital Statistics Rates in the United States, 1940-1960, U.S. National Center for Health Statistics, table 56; and U.S. National Center for Health Statistics, Monthly Vital Statistics Report, "Advance Report--Final Mortality Statistics, 1969," Vol. 21, No. 4, Supplement (2), table 4.

Throughout the 20th century the proportion of the population has been increasing especially rapidly at the older ages, where the death rates have always been among the very highest. The population has increased more slowly at the infant and childhood ages, where the death rates in the early 1900's were also quite high. As the net effect of the changes in the age distribution of the population and in mortality rates by age, the age-adjusted death rates have fallen since 1900 at a more accentuated pace than the crude death rates (table 2.16). In view of the fact that the age-adjusted rates are considered more comparable over time than the crude rates, the adjusted rates are shown in later parts of this section if they are readily available.

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Table 2.16 **Crude Death Rates, and Age-Adjusted Death Rates per 1,000 Population by Race and Sex: Death Registration States, 1900 to 1930, and United States, 1940 to 1969**

Year	Total		Age-adjusted death rate			
	Crude death rate	Age-adjusted rate[1]	Sex		Race	
			Male	Female	White	Other
1969.....	9.5	7.3	9.5	5.5	6.9	10.5
1965.....	9.4	7.4	9.4	5.7	7.1	10.3
1960.....	9.5	7.6	9.5	5.9	7.3	10.5
1950.....	9.6	8.4	10.0	6.9	8.0	12.3
1940.....	10.8	10.8	12.1	9.4	10.2	16.3
1930.....	11.3	12.5	13.5	11.3	11.7	20.1
1920.....	13.0	14.2	14.7	13.8	13.7	20.6
1910.....	14.7	15.8	16.9	14.6	15.6	24.1
1900.....	17.2	17.8	18.6	17.0	17.6	27.8
Ratio:						
1969/1950...	.99	.87	.95	.80	.86	.85
1900/1950...	1.79	2.12	1.86	2.46	2.20	2.26

[1]The age distribution of the total population of the United States as of 1940 was used as the standard in adjusting the rates.

Source: U.S. National Center for Health Statistics, 1965, Vital Statistics of the United States, Vol. II, Mortality, tables 1-1 and 1-2; and Monthly Vital Statistics Report, "Advance Report--Final Mortality Statistics, 1969," Vol. 21, No. 4, Supplement (2), table 8.

Mortality by sex and race—Death rates have declined more rapidly for women than for men during the 20th century, both before and since 1950. According to Kitagawa (1972, p. 96), the lower mortality among women appears to be related to several factors, including the characteristically greater restraint that has been placed on women's than on men's behavior, especially among those who are unmarried. The decline in the death rate among women has been augmented by the decline in maternal mortality and by the decline in the proportion of women who bear a large number of children or no children at all. According to Kitagawa, data for 1959 to 1961 show that women who had borne two to four children had lower mortality rates than women who had borne either more or fewer children.

White persons have had consistently lower mortality rates than persons of other races (as a whole), and the difference has been greater among the young than the old. This development reflects at

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least in part the socioeconomic difference between the racial groups, according to results reported by Kitagawa (1972, p. 95), on the basis of the relationship of mortality rates to race and income level considered jointly. Although nine-tenths of the persons of "other" races are Negroes, this racial category includes Asians in the United States, some subgroups of whom have relatively low mortality and relatively high socioeconomic status.

Average length of life by sex and race—A convenient measure for summarizing the differential effects of declining mortality on various segments of the population is the average length of life, or life expectancy at birth, as estimated by the use of actuarial methods. Changes in average length of life in the United States during the 20th century are shown in table 2.17.

Table 2.17 **Estimated Average Length of Life (Years) by Race and Sex: United States, 1900 to 1969**

Year	Total	Male	Female	White	Other
1969.....	70.4	66.8	74.3	(NA)	(NA)
1968.....	70.2	66.6	74.0	71.1	63.7
1960.....	69.7	66.6	73.1	70.6	63.6
1950.....	68.2	65.6	71.1	69.1	60.8
1940.....	62.9	60.8	65.2	64.2	53.1
1920.....	54.1	53.6	54.6	54.9	45.3
1900.....	47.3	46.3	48.3	47.6	33.0

NA Not available.

Source: U.S. National Center for Health Statistics, 1968, Vital Statistics of the United States, Vol. II, Mortality, table 5-6; and Monthly Vital Statistics Report, "Advance Report--Final Mortality Statistics, 1969," Vol. 21, No. 4, Supplement (2), table 9.

Over the nearly 70-year period, the average length of life increased by one-half, with the improvement being somewhat greater for women than for men and less for white persons than for other persons. Most of the improvement in survivorship occurred during the period before 1950. During the years between 1900 and 1950, life expectancy in general increased by 21 years, but since 1950 it has increased by only about 2 years. However, male life expectancy since 1900 has increased by nearly 21 years as compared with 26 years for women, and has increased by nearly 24 years for white persons as compared with 31 years for other persons. Special computations of life expectancy in 1959 to 1961 by Kitagawa (1972, p. 96) show that Japanese men at birth could expect to live nearly 7 years longer than white men and 13 years

longer than Negro men. She also found that Japanese women could expect to live nearly 6 years longer than white women and 13 years longer than Negro women.

Mortality ratios by education and family income –For several reasons, education is perhaps the best variable for use in the analysis of socioeconomic differentials in mortality among adults. It is applicable to both women and men, whereas occupation and personal income are not applicable to the many women who are not in the labor market. Moreover, education is a stable characteristic for nearly all persons over 25 or 30 years of age and is therefore relevant for analyses that extend into old age. By contrast, the recent occupation or income of an elderly person may not reflect the socioeconomic level of the person at the peak, or near the peak, of his or her career; moreover, family income during the year before the death of the chief breadwinner may be considerably lower than it was 2 or 3 years before that person's death. However, the amount of family income is the best indicator of the financial resources available to the family members from which to support their needs for the essentials of life, including the maintenance of their health.

In this section, information is presented on the relationship of mortality to educational attainment and family income for persons of mature adult age (25 to 64 years old). The death rates used in producing the mortality ratios in table 2.18 were prepared through an extensive matching operation, involving deaths for May to August 1960 in the numerators and population bases from the 1960 census of population. (No comparable study has been planned in relation to the 1970 census.) The entries in the first two columns of the table refer to "mortality ratios," which were computed by a method explained in Kitagawa (1972, footnote 19) and more fully in Kitagawa and Hauser (1973, appendix A). Briefly, according to the first reference, "age-specific death rates for the total population in the United States were used to calculate expected deaths in each color-sex-education subgroup of the population. Each ratio . . . is a 'relative' which expresses the ratio of actual to expected deaths for a particular education or income level as a proportion of the comparable ratio for the color-sex-age subtotal to which it belongs. In other words, the ratio to actual deaths for each color-sex-age subgroup (for example, white males 25-64 years of age) was arbitrarily set equal to 1.00 to enable direct comparison of the size and pattern of education and income differentials in different subgroups of the population."

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Table 2.18 Mortality Ratios and Percent Distribution of Population by Education and Family Income, for White Persons 25 to 64 Years Old by Sex: United States, May-August 1960

Education in 1960 and family income in 1959	Mortality ratios[1]		Population (percent)	
	Male	Female	Male	Female
YEARS OF SCHOOL COMPLETED				
White, 25-64 years old	1.00	1.00	100.0	100.0
Elementary:				
0-4 years	1.15	1.60	5.0	3.9
5-7 years	1.14	1.18	12.0	10.1
8 years	1.07	1.08	16.7	15.4
High school:				
1-3 years	1.03	.91	20.4	21.0
4 years	.91	.87	24.7	32.8
College:				
1-3 years	.85	.82	9.8	10.2
4 years or more	.70	.78	11.4	6.6
FAMILY MEMBERS BY FAMILY INCOME				
White, 25-64 years old	1.00	1.00	100.0	100.0
Under $2,000	1.51	1.20	6.3	8.5
$2,000-$3,999	1.20	1.12	12.8	14.1
$4,000-$5,999	.99	1.00	23.9	23.0
$6,000-$7,999	.88	.98	22.6	21.5
$8,000-$9,999	.93	.88	14.2	13.7
$10,000 and over	.84		20.2	19.3
Under $4,000	1.32	1.15	19.1	22.6
$8,000 and over	.88	.88	34.4	33.0

[1]The range of education or income differentials in mortality within each age-sex subgroup. See text for further explanation.

Source: Evelyn M. Kitagawa and Philip M. Hauser, 1973, Differential Mortality in the United States: A Study in Socioeconomic Epidemiology, in the Vital and Health Statistics Monograph Series of the American Public Health Association, Cambridge, Mass.: Harvard University Press, tables 2.1, 2.2, and 2.5. Copyright by the President and Fellows of Harvard College (Cambridge, Mass., 1973). Reprinted by permission.

A strong inverse association between mortality and educational attainment is clearly apparent in table 2.18 among white adults in the United States. The pattern was more consistent among persons 25 to 64 years old than among those 65 and over (not shown in the table), and the range of the education differentials was greater among women than men. Moreover, data not shown in table 2.18 indicate that similar patterns were exhibited by persons of other races as well as by white persons. The most extreme deviation

in mortality from a subgroup total was the ratio of 1.60 for white women 25 to 64 years old with less than 5 years of school, indicating that mortality rates tend to be very high among these women—60 percent above the average for all white women in that age group. Above this educational level, the differentials for women were quite similar to those for men.

The mortality differentials were also translated into differences in life expectancy (Kitagawa, 1972, p. 93). The results showed that "at age 25, white females with at least 1 year of college could expect to live almost 10 years longer, on the average, than those who completed less than 5 years of school; whereas the difference in the expectancy of life at age 25 of white males of high and low education, respectively, was only 3.2 years."

Mortality ratios also varied inversely with family income level; the inverse relationship was especially strong among men 25 to 64 years old. White men in this age range with family incomes of less than $2,000 in 1959 had a mortality ratio that was 51 percent higher than the average for all white men 25 to 64 years old and 80 percent higher than the ratio of 0.84 for those in families with incomes of $10,000 and over. The differentials in mortality for white women were more nearly comparable with those for white men among persons above the lowest income interval. This calls attention again to the fact that family income may decline during the year when a terminal illness reduces the employment of the chief breadwinner, who is usually the husband.

These findings show that education and income tend to have the same general impact on mortality, but each of these variables has its own independent and important relationship with mortality.

Major causes of death—Decreasing mortality during recent decades is attributable to both medical and environmental changes, as pointed out earlier, but these changes have been more effective in reducing deaths from some causes than others. Improvements in public health programs, along with rising standards of living and increasing success in identifying and controlling infectious diseases have contributed to the lowering of deaths that result from disease, but less success has been achieved in the control of deaths from accidental and violent causes (Farley, 1972, pp. 126-32).

Death rates for selected leading causes are shown in table 2.19 for 1969 and 1950. These rates have been adjusted for changes in

the age composition. Close to one-half of *all deaths* at the two dates were attributable to the major cardiovascular diseases, even though the proportion of all deaths from these diseases did decline by 4 percentage points. At the same time, *death rates* in general declined between 1950 and 1969 by 6 percent for males and 20 percent for females, whereas the rates for cardiovascular diseases declined by 13 percent for males and 27 percent for females. These findings reflect an increasing difference between men and women with respect to mortality from such subcategories of cardiovascular disease as hypertension and vascular lesions, as well as nephritis and renal sclerosis. These findings also reflect the net effect of increases in some subcategories which are more than offset by decreases in other subcategories of mortality from cardiovascular disease.

Malignant neoplasms (various forms of cancer) have been an increasing cause of death among men during the last two decades, and the decline in mortality from this cause among women has been only one-half as great as that for other causes. Mortality from malignant neoplasms of the respiratory system, commonly associated with the use of cigarettes, has risen rapidly during this period and is about seven times as frequent among men as among women. Offsetting declines have been recorded in deaths from malignant neoplasms of the digestive organs and of the genital organs.

Despite vigorous campaigns to reduce motor vehicle accidents in the United States, such accidents have been a much more frequent cause of death in recent years than in 1950. Other accidental causes of death (such as falls, drowning, and fires) have declined since 1950. Another violent cause of death, homicide, has become much more frequent, especially among men. Fully 4 percent of the deaths among Negroes in the United States in 1969, but only 1 percent of those among whites, occurred from homicide. Although suicide has been occurring more often among Negroes in recent years, whites are still about twice as likely as Negroes to die from this cause.

Deaths from tuberculosis were among the half dozen most frequent causes of death in 1950, but by 1969 they had become much less frequent, the rate being only one-tenth as large for this cause in 1969 as in 1950. Although modern medical treatment has proved to be quite effective against tuberculosis, the length of time required to cure the disease is often long, and persons of limited financial means cannot always afford the cost of the treatment. Partly because of this reason, the death rate from tuberculosis remains four times as high among Negroes as whites.

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Table 2.19 Age-Adjusted Death Rates per 100,000 Population and Percent Distribution of Deaths by Cause of Death, Race, and Sex: United States, 1969 and 1950

Cause of death, race, and sex	Death rates[1]			Percent of all deaths	
	1969	1950	1969/1950	1969	1950
Male, all causes	945	1,002	0.94	100.0	100.0
Major cardiovascular diseases	458	525	.87	48.5	52.4
Malignant neoplasms	156	131	1.19	16.5	13.1
Motor vehicle accidents	43	36	1.19	4.6	3.6
Other accidents	40	47	.85	4.2	4.7
Homicide	14	8	1.75	1.5	.8
Suicide	17	17	1.00	1.8	1.7
Influenza and pneumonia	31	31	1.00	3.3	3.1
Diabetes mellitus	14	11	1.27	1.5	1.1
Cirrhosis of liver	19	11	1.73	2.0	1.1
Bronchitis, emphysema, asthma	21	[2]9	2.33	2.2	.9
Tuberculosis	4	29	.14	.4	2.9
All other	128	147	.82	13.5	14.6
Female, all causes	548	688	.80	100.0	100.0
Major cardiovascular diseases	263	359	.73	48.0	52.2
Malignant neoplasms	109	121	.90	19.9	17.6
Motor vehicle accidents	15	11	1.36	2.7	1.6
Other accidents	14	21	.67	2.6	3.1
Homicide	4	3	1.33	.7	.4
Suicide	7	5	1.40	1.3	.7
Influenza and pneumonia	19	22	.86	3.5	3.2
Diabetes mellitus	15	17	.88	2.7	2.5
Cirrhosis of liver	10	6	1.67	1.8	.9
Bronchitis, emphysema, asthma	5	[2]3	1.67	.9	.4
Tuberculosis	1	15	.07	.2	2.2
All other	86	105	.80	15.7	15.3
Male, white	905	963	.94	[3]95.8	[3]96.1
Male, other	1,300	1,359	.96	[3]135.6	[3]135.6
Female, white	516	645	.80	[3]94.2	[3]93.8
Female, other	826	1,096	.75	[3]150.7	[3]159.3

[1]The age distribution of the total population of the United States as of 1940 was used as the standard in adjusting the rates.

[2]Rate for 1954.

[3]Death rate for the group as percent of death rate for all persons of the specified sex.

Source: Robert D. Grove and Alice M. Hetzel, Vital Statistics Rates in the United States, 1940-1960, U.S. National Center for Health Statistics, table 62; U.S. National Center for Health Statistics, Monthly Vital Statistics Report, "Advance Report--Final Mortality Statistics, 1969," Vol. 21, No. 4, Supplement (2), table 8; and NCHS records.

At the same time that tuberculosis deaths have fallen, deaths from another group of respiratory diseases—bronchitis, emphysema, and asthma—have risen sharply, perhaps in part as a consequence of the increase in use of tobacco and in part because of a decline in deaths from other causes related to weaknesses of the respiratory system. The marked increase in deaths from cirrhosis of the liver has probably been related to increased consumption of alcoholic beverages.

Changes since 1950 in death rates from a particular cause can be properly analyzed only in the context that age-adjusted death rates from all causes have declined by 13 percent since 1950. Moreover, as people age, they are increasingly subject to death from one cause or another. Accordingly, if death rates from some causes have declined more than 13 percent since 1950, it should not be surprising if the death rates from some other causes have either decreased less than 13 percent or have actually increased. For example, between 1950 and 1970 infant and maternal mortality have decreased very sharply; the infant death rate fell from 29 to 20 per 1,000 children under 1 year old, and the maternal mortality rate fell from 8 to only 2 per 1,000 live births. Therefore, as fewer children and mothers die soon after the birth of the children, more of the deaths that do occur are among persons in other age groups.

International Migration

Historical perspective—At the beginning of the 20th century, the volume of net immigration to the United States was at its peak. The 6.3 million net immigration between 1900 and 1910 represented 8 percent of the Nation's population at the beginning of the decade; however, net immigration dropped to 2.5 million over the 1910 to 1920 decade, rose to 3.2 million during the 1920's (Taeuber and Taeuber, 1958, p. 294), and then fell sharply to 140,000 during the depression years of the 1930's (Census, **Current Population Reports**, 1972d, p. 15). Since 1940, immigration has increased in each successive decade; between 1960 and 1970, net civilian immigration amounted to 3.9 million or 2 percent of the population at the beginning of the decade.

Although immigration as a proportion of the total population is lower than it was at the first of this century, the rate of natural increase (births minus deaths) has declined and, therefore, immigration is now accounting for a greater proportion of total population

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growth than in the past several decades. Between 1940 and 1950, for example, only 9 percent of the total national increase was due to immigration; this proportion rose to 11 percent during the 1950's and to 16 percent during the 1960's (Census, **Current Population Reports**, 1972d, p. 9).

As defined by the Bureau of the Census, net civilian immigration consists of alien immigration, net arrivals from Puerto Rico, parolees (as described below), emigration, and net arrivals of civilian citizens affiliated with the U.S. Government. Annual figures for the decade ending June 30, 1970, are presented in table 2.20 for total net civilian immigration as well as for each of its five components.

Table 2.20 **Net Civilian Immigration by Component: United States, 1960 to 1970**

(Numbers in thousands)

Year (July 1)	Net civilian immigration	Alien immigration	Net arrivals from Puerto Rico	Net arrivals of civilian citizens	Parolees	Emigration
Total.....	3,931	3,168	165	460	393	255
1969-1970.....	505	361	44	92	46	37
1968-1969.....	383	347	-7	34	42	33
1967-1968.....	420	355	19	29	45	29
1966-1967.....	429	331	34	43	46	26
1965-1966.....	425	323	30	62	34	24
1964-1965.....	323	297	11	34	5	23
1963-1964.....	341	292	4	48	19	23
1962-1963.....	356	306	5	51	16	22
1961-1962.....	365	284	11	14	75	20
1960-1961.....	385	271	14	53	64	18

Source: Richard Irwin and Robert Warren, 1972, "Demographic Aspects of American Immigration," in Charles F. Westoff and Robert Parke, Jr., eds., Demographic and Social Aspects of Population Growth, Washington, D.C.: U.S. Government Printing Office, table 5.

Alien immigration—Alien immigration, the major component of net civilian immigration, comprises aliens lawfully admitted for permanent residence in the United States under the provisions of the Immigration and Nationality Act. As stated earlier, the Immigration Act of 1965 replaced the Immigration Act of 1924. In place of quotas based on national origins, an annual ceiling of 170,000 alien immigrants was established for all countries outside

the Western Hemisphere, with an annual ceiling of 20,000 per country. Immigrants from these countries would enter within a system of preference categories. For the first time, an annual restriction (120,000) was imposed on immigrants from the Western Hemisphere, but there was no individual country limitation, and the intending immigrants were not subject to the preference system. Immediate relatives of U.S. citizens were exempt from any limitation. The altered law has influenced the numbers, the origins, and the characteristics of alien immigrants to the United States.

The changes introduced by the 1965 Act increased the volume of net alien immigration. The provisions of the new Act were fully operative on July 1, 1968, and between fiscal years 1969 and 1972, immigration averaged 372,000. This was compared with an average of only 290,000 for the first half of the 1960's. The 1972 immigration figure of 385,000 was 30 percent higher than the 297,000 immigrants admitted in 1965 (INS, 1972, table 1).

The 1965 Immigration Act also shifted the distribution of immigrants by country of origin. Table 2.21 compares the geographic origin of immigrants for fiscal year 1965 (under the old law) with the distribution for FY 1972 (under the present law). In this time period, there was a marked shift from northern countries to southern and eastern countries of Europe as was evidenced by the large percentage decreases in alien immigration for Germany and the United Kingdom and the corresponding large percentage increases for Greece, Italy, and Portugal. In 1965, only 7 percent of alien immigrants came from Asia; in 1972, that proportion had more than quadrupled. Over 70 percent of the increase in Asian immigration was accounted for by four countries: China and Taiwan, India, Korea, and the Philippines. The share of immigration from North America diminished between 1965 and 1972, but within this category there were notable increases in the proportions of immigrants from the West Indies and Mexico, with a decided decrease in the proportion from Canada. South America's contribution to total immigration to the United States was cut in half, and even though Africa and Oceania witnessed substantial percentage gains in numbers of immigrants, their role in the total geographic distribution was still minor.

Although the origins of immigrants have changed significantly since the passage of the 1965 Immigration Act, as table 2.22 illustrates, the distribution of immigrants by major destination in the United States was not as significantly affected. For both 1965

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Table 2.21 Alien Immigrants Born in Countries and Areas from Which 10,000 or More Migrated to the United States in the Years Ending June 30, 1972 and 1965

Country or region of birth	Number		Percent		Percent change, 1965-1972
	1972	1965	1972	1965	
Total immigrants	384,685	296,697	100.0	100.0	29.7
Northern and Western Europe	24,501	73,318	6.4	24.7	-66.6
Germany	6,848	24,045	1.8	8.1	-71.5
United Kingdom	10,078	27,358	2.6	9.2	-63.2
Other N. and W. Europe	7,575	21,915	2.0	7.4	-65.4
Southern and Eastern Europe	65,492	40,106	17.0	13.5	63.3
Greece	11,021	3,002	2.9	1.0	267.1
Italy	21,427	10,821	5.6	3.6	98.0
Portugal	10,343	2,005	2.7	.7	415.9
Other S. and E. Europe	22,701	24,278	5.9	8.2	-6.5
Asia	121,058	20,683	31.5	7.0	485.3
China and Taiwan	17,339	4,057	4.5	1.4	327.4
India	16,926	582	4.4	.2	2,808.2
Korea	18,876	2,165	4.9	.7	771.9
Philippines	29,376	3,130	7.6	1.1	838.5
Other Asias	38,541	10,749	10.0	3.6	258.6
North America	144,375	126,729	37.5	42.7	13.9
West Indies	61,372	37,583	16.0	12.7	63.3
Cuba	20,045	19,760	5.2	6.7	1.4
Dominican Republic	10,760	9,504	2.8	3.2	13.2
Jamaica	13,427	1,837	3.5	.6	630.9
Other West Indies	17,140	6,482	4.5	2.2	164.4
Canada	10,776	38,327	2.8	12.9	-71.9
Mexico	64,040	37,969	16.6	12.8	68.7
Other North America	8,187	12,850	2.1	4.3	-36.3
South America	19,359	30,962	5.0	10.4	-37.5
Africa	6,612	3,383	1.7	1.1	95.4
Oceania and other	3,288	1,516	.9	.5	116.9

Source: U S. Immigration and Naturalization Service, 1972, Annual Report of the Commissioner of Immigration and Naturalization, page 4 and table 14.

and 1972, New York and California were the States of intended permanent residence for about 45 percent of all alien immigrants. A large number of Italian, Polish, Chinese, Cuban, and British immigrants have favored New York as their intended residence; many immigrants from Mexico, Canada, the Philippines, Taiwan, Mainland China, and other Asian countries have chosen to settle in California (Gibson, 1970, pp. 23-24). The seven States listed in table 2.22 accounted for over 70 percent of the intended destinations for both 1965 and 1972. However, Illinois, Texas, New Jersey, and New York all had percentage gains greater than the national increase in the volume of immigrants received when compared to that in 1965; in contrast, the percent increases for

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California, Massachusetts, and Florida were less than for the Nation as a whole. In interpreting these patterns of residence, it has been noted that immigrants have tended to settle near close family members and employment opportunities; both of these features were found in the most populous States and in larger cities. Immigrants, therefore, seemed to have settlement patterns similar to those of the receiving population (Keely, 1972, pp. 198-99).

Table 2.22 **Alien Immigrants Admitted by State of Intended Permanent Residence: United States, Years Ending June 30, 1972 and 1965**

State of intended permanent residence	Number		Percent		Percent change, 1965-1972
	1972	1965	1972	1965	
Total	384,685	296,697	100.0	100.0	29.7
California	80,121	67,671	20.8	22.8	18.4
Florida	17,027	15,077	4.4	5.1	12.9
Illinois	25,611	15,587	6.7	5.3	64.3
Massachusetts	13,364	11,455	3.5	3.9	16.7
New Jersey	24,011	15,096	6.2	5.1	59.1
New York	93,833	69,011	24.4	23.3	36.0
Texas	23,624	14,674	6.1	4.9	61.0
All other	107,094	88,126	27.8	29.7	21.5

Source: U.S. Immigration and Naturalization Service, 1972, Annual Report of the Commissioner of Immigration and Naturalization, table 12.

Table 2.23 presents data which suggest that the provisions contained in the 1965 Act have had little impact on the distribution of immigrants by age and sex. Traditionally, a predominant number of immigrants have been young adults, and immigrants admitted in the periods 1961-65 and 1969-72 were no exception. For both time periods, three-fourths of immigrants were less than 35 years of age. Only 2 percent were over age 65. Likewise, in both time periods female immigrants were more numerous than males, continuing a trend which began around 1930. Prior to 1930, males outnumbered females among the immigrants (Taeuber and Taeuber, 1971, p. 97).

One of the major goals of the 1965 Immigration Act was the placement of greater emphasis on family relationships as a basis for admitting immigrants. This aim was to be achieved by the addition of parents of U.S. citizens over age 21 to the list of immigrants

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exempt from any numerical limitation and by the alteration of the size and order of the preference categories to facilitate the reunification of family members (Keely, 1971, p. 159). These new specifications seem to have shifted the marital status distribution slightly with regard to the proportions of immigrants who were single and married. In the first half of the 1960's under the old system, an average of 52 percent of alien immigrants were single, and 44 percent were married. For the period 1969-72 under the new system, 50 percent of the immigrants were married, and 47 percent were single.

Table 2.23 Alien Immigrants by Age, Sex Ratio, and Marital Status: United States, Annual Averages for 1969 to 1972 and 1961 to 1965

(Numbers in thousands)

Subject	Annual average, 1969-1972[1]	Annual average, 1961-1965[2]	Percent of total	
			1969-1972	1961-1965
All ages	372	290	100.0	100.0
Under 18 years	116	79	31.2	27.1
18-24 years	65	70	17.4	24.1
25-34 years	96	72	25.9	24.7
35-44 years	46	34	12.4	11.8
45-64 years	39	30	10.5	10.4
65 years and over	9	6	2.4	2.0
Sex ratio (males per 100 females)	88	80	(X)	(X)
Marital status, all classes	372	290	100.0	100.0
Single	175	151	47.1	52.2
Married	187	128	50.3	44.2
Widowed	7	7	1.9	2.3
Divorced	3	4	.7	1.2

X Not applicable.
[1]Average of 4 years ending June 30, 1972.
[2]Average of 5 years ending June 30, 1965.

Source: U.S. Immigration and Naturalization Service, 1965ff., Annual Report of the Commissioner of Immigration and Naturalization, tables 10 and 10A.

The preference system under the 1965 Immigration Act favored professional workers. Table 2.24 indicates that between 1965 and 1972 there was an increase in the proportion of all alien immigrants who were professional, technical, and kindred workers,

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with a corresponding decline in the proportion who were clerical and sales workers. Proportions of immigrants in other occupational categories were approximately the same.

The increase in the professional category was attributable mainly to the gain in the number of professionals from Asia. In 1972, a larger proportion of immigrants from Asia were professionals than in 1965 (table 2.24), and a larger proportion of immigrant professionals came from Asia (table 2.25). The proportion of professional workers from Africa also rose considerably, but because Africa's numbers were small, its contribution to the total growth of the professional category was not as significant. South America, North America, and Europe evidenced declines in the number of professional workers immigrating to the United States.

Table 2.24 **Alien Immigrants by Major Occupation Group from All Countries and Asia: United States, Years Ending June 30, 1972 and 1965**

Major occupation group	All countries		Asia	
	1972	1965	1972	1965
Aliens reporting an occupation.....	157,241	130,811	50,756	5,987
Percent.....	100.0	100.0	100.0	100.0
Professional, technical, and kindred workers.....	31.1	22.0	61.7	35.3
Farmers and farm managers.....	.1	1.4	.1	1.3
Managers, officials, and proprietors....	4.9	5.4	5.6	11.1
Clerical and kindred workers.....	7.9	18.8	6.9	13.7
Salesworkers.....	1.6	4.0	1.7	3.9
Craftsmen, foremen, and kindred workers.	12.0	13.4	5.5	5.5
Operatives and kindred workers.....	12.1	10.8	4.5	8.7
Private household workers.....	6.7	7.4	2.8	1.2
Service workers, other.....	9.8	8.2	7.1	15.1
Farm laborers and foremen.....	4.1	2.0	1.8	1.5
Laborers, except farm and mine.....	9.7	6.5	2.3	2.8

Source: U.S. Immigration and Naturalization Service, 1965ff., Annual Report of the Commissioner of Immigration and Naturalization, table 8.

The large growth in Asian immigration of professional workers can be accounted for by changes embodied in the 1965 Act. In the first place, numerical restrictions were lifted for Asia as each country outside the Western Hemisphere was given an equal annual immigration quota of 20,000. The effect of this provision, as stated above, was an increase in both the total numbers of Asian immigrants and Asia's proportion of total immigration. Secondly,

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for Asian immigrants entering with occupational preferences (third and sixth), the greater emphasis given to professionals under the 1965 Act resulted in a preponderance of professionals from Asian countries (Keely, 1971, p. 167).

Table 2.25 **Distribution by Region of Professional, Technical, and Kindred Workers Who Migrated to the United States in the Years Ending June 30, 1972 and 1965**

Region of birth	Number		Percent		Percent change, 1965-1972
	1972	1965	1972	1965	
All countries.....	48,887	28,790	100.0	100.0	69.8
Europe.....	7,781	12,941	15.9	44.9	-39.9
Asia.....	31,303	2,113	64.0	7.3	1,381.4
North America.....	5,672	9,840	11.6	34.2	-42.4
South America.....	1,594	3,172	3.3	11.0	-49.7
Africa.....	1,974	505	4.0	1.8	290.9
Oceania and other.....	563	219	1.2	.8	157.1

Source: U.S. Immigration and Naturalization Service, 1965ff., Annual Report of the Commissioner of Immigration and Naturalization, table 8.

Net arrivals from Puerto Rico Since natives of Puerto Rico are U.S. citizens, no official attempt is made to record permanent movement from Puerto Rico to the mainland or vice versa. The Census Bureau uses ship and plane passenger data to and from Puerto Rico collected by the Puerto Rican Planning Board to estimate net permanent residence changes. Net movement indicated by these passenger data between 1960 and 1970 by year is shown in table 2.20. The decade total was only a little over one-third as large as the total of 456,000 net arrivals during the 1950's (Irwin and Warren, 1972, p. 173).

There are certain limitations in using passenger data as estimates of net movement from Puerto Rico. These statistics include all persons arriving and departing, and tourists are more numerous than migrants. To the extent that the numbers of tourist arrivals and departures offset one another, the remainder should be the net number of permanent residence changes. Nevertheless, the gross movement is so large that a small bias in the figures for either arrivals or departures could result in serious errors in the estimates of permanent movement. In addition, although passenger movements between the United States and Puerto Rico predominate,

traffic between Puerto Rico and other countries is also included. However, the major portion of foreign travel is estimated to be tourist movement (Irwin and Warren, 1972, p. 173).

Parolees—During the 1960's a large number of aliens from Cuba, Hong Kong, and certain other areas were admitted to the United States as parolees under the authority of the Attorney General. After 2 years of continuous residence in the United States, parolees are eligible to adjust their status to that of permanent resident alien. The Bureau of the Census adds parolees to immigration totals in the year of arrival, whereas the Immigration and Naturalization Service adds parolees to the alien immigration category in the year that permanent resident status is acquired (Irwin and Warren, 1972, pp. 174-75). The estimated number of parolees by year of arrival in the United States is presented for the decade 1960 to 1970 in table 2.20 above.

About 96 percent (378,000) of the estimated 393,000 persons who were paroled during the 1960's were from Cuba. More than 150,000 Cubans came to the United States between July 1960 and October 1962 via commercial and private means. Between November 1965 and June 1970, the Cuban airlift (a commercial airline running two flights daily, 5 days a week) brought about 200,000 Cubans to the United States.

Emigration—Emigration includes permanent departures of both citizens and resident aliens from the United States. Collection of data on emigration of resident aliens, that is, the permanent return movement of immigrants lawfully admitted for permanent residence, was discontinued by the Immigration and Naturalization Service in 1957. Since then, the Bureau of the Census has developed estimates of emigration shown in table 2.20, using information provided by the Social Security Administration and data presented in statistical publications of various foreign countries (Irwin and Warren, 1972, p. 175). These estimates of emigration are currently being revised.

Chapter III. POPULATION COMPOSITION

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Age and Sex Structure

Although the total population of the United States increased by 18.7 percent during the 1950's and 13.4 percent during the 1960's, the changes in various age groups differed greatly from these overall figures, due largely to past fluctuations in fertility. The following discussion is focused on the data in table 3.1 for 1970, 1960, and 1950 which correspond to selected functional age groups. Table 3.2 shows a more conventional distribution of the population by sex and 5-year age groups for 1970. The population pyramid, figure 3.1, shows the changes that have occurred in the age profile between 1950 and 1970 by 5-year age groups.

The population of preschool age is regarded here as children under 5 years of age. Approximately 84 percent of the children 5

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years of age in October 1972 were enrolled in school (including kindergarten), and 98 percent of those 6 years of age were in school. The number of children under 5 increased by 24 percent during the 1950's because the crest of the post-World War II "baby boom" was not reached until the late 1950's. Then, during the 1960's, the number of children under 5 declined by 16 percent as a consequence of a pronounced drop in the birth rate. As a result, the population of preschool age dropped from 11 percent to 8 percent of the total population between 1960 and 1970.

Table 3.1 Estimates of the Population by Sex and Selected Functional Age Groups: United States, 1950 to 1970

(Numbers in thousands. As of July 1. Includes Alaska, Hawaii, and Armed Forces overseas)

Sex and age	Population			Percent distribution		
	1970	1960	1950	1970	1960	1950
Total	204,879	180,671	152,271	100.0	100.0	100.0
Under 5 years	17,167	20,337	16,410	8.4	11.3	10.8
5-17 years	52,505	44,188	30,867	25.6	24.5	20.3
18-64 years	115,030	99,468	92,597	56.1	55.1	60.8
65 years and over	20,177	16,679	12,397	9.8	9.2	8.1
Under 18 and 65+ per 100 18-64	78.1	81.6	64.4	(X)	(X)	(X)
Male	100,264	89,319	75,849	100.0	100.0	100.0
Under 5 years	8,752	10,336	8,362	8.7	11.6	11.0
5-17 years	26,746	22,447	15,684	26.7	25.1	20.7
18-64 years	56,315	48,992	45,947	56.2	54.9	60.6
65 years and over	8,450	7,544	5,856	8.4	8.4	7.7
Female	104,615	91,352	76,422	100.0	100.0	100.0
Under 5 years	8,415	10,001	8,048	8.0	10.9	10.5
5-17 years	25,758	21,740	15,183	24.6	23.8	19.9
18-64 years	58,715	50,476	46,650	56.1	55.3	61.0
65 years and over	11,727	9,135	6,541	11.2	10.0	8.6
15-44 years	42,630	36,147	34,344	40.7	39.6	44.9

X Not applicable.

Source: U.S. Bureau of the Census, Current Population Reports, "Estimates of the Population of the United States, by Single Years of Age, Color, and Sex: 1900 to 1959," Series P-25, No. 311; and ibid., "Preliminary Estimates of the Population of the United States, by Age and Sex: April 1, 1960 to July 1, 1971," Series P-25, No. 483, tables 1, 7, and 8.

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The population of school age (5 to 17 years) as defined here relates essentially to the population between kindergarten and precollege age. This group increased by 43 percent during the 1950's as the comparatively small birth cohorts of the depression years were replaced in this age group by larger cohorts, many of which were born during the "baby boom." The increase during the 1960's was 19 percent. Thus, by compounding the growth, the population 5 to 17 years of age increased by nearly three-fourths within the span of two decades while the population of all ages grew by only about one-third. Between 1950 and 1970, this population of school age increased from 20 percent to 26 percent of the total population. The large variations in the population of school age during the last two decades have created serious problems in the administration of schools, in the supply of goods consumed by children of school age, and in many other respects.

Table 3.2 **Estimates of the Population by Age and Sex: United States, 1970**

(Numbers in thousands. As of July 1. Includes Alaska, Hawaii, and Armed Forces overseas)

Age	Population			Percent distribution		
	Total	Male	Female	Total	Male	Female
All ages	204,879	100,264	104,615	100.0	100.0	100.0
Under 5 years	17,167	8,752	8,415	8.4	8.7	8.0
5-9 years	19,888	10,134	9,754	9.7	10.1	9.3
10-14 years	20,800	10,595	10,205	10.2	10.6	9.8
15-19 years	19,301	9,802	9,499	9.4	9.8	9.1
20-24 years	17,192	8,649	8,543	8.4	8.6	8.2
25-29 years	13,687	6,796	6,891	6.7	6.8	6.6
30-34 years	11,570	5,708	5,862	5.6	5.7	5.6
35-39 years	11,174	5,484	5,690	5.5	5.5	5.4
40-44 years	11,982	5,838	6,143	5.8	5.8	5.9
45-49 years	12,136	5,865	6,271	5.9	5.8	6.0
50-54 years	11,151	5,371	5,780	5.4	5.4	5.5
55-59 years	9,999	4,776	5,223	4.9	4.8	5.0
60-64 years	8,652	4,041	4,611	4.2	4.0	4.4
65-69 years	7,008	3,131	3,877	3.4	3.1	3.7
70-74 years	5,474	2,323	3,151	2.7	2.3	3.0
75 and over	7,535	2,996	4,699	3.8	3.0	4.5
Median age	28.0	26.6	29.3	(X)	(X)	(X)

X Not applicable.

Source: U.S. Bureau of the Census, Current Population Reports, "Preliminary Estimates of the Population of the United States, by Age and Sex: April 1, 1960 to July 1, 1971," Series P-25, No. 483, table 7.

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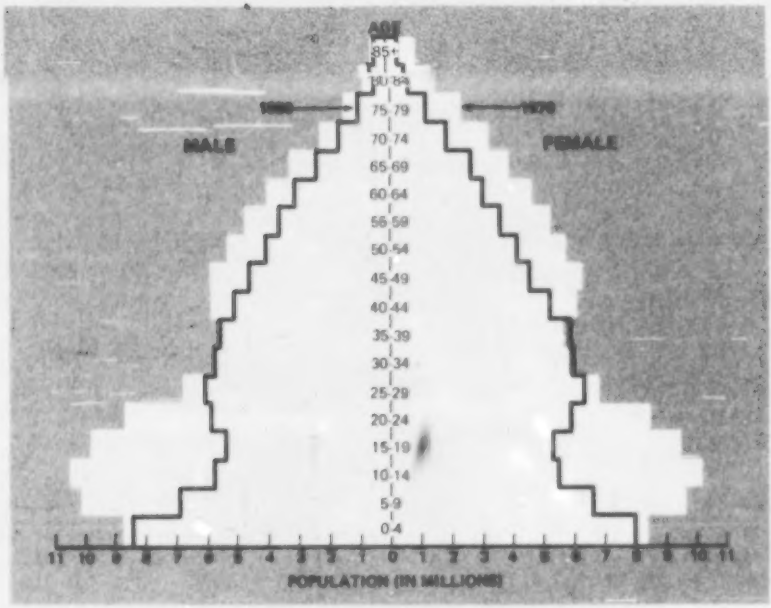
Figure 3.1 **Population by Age and Sex: United States, 1970 and 1950**



Source: U.S. Bureau of the Census, **Current Population Reports**, "Estimates of the Population of the United States and Components of Change, by Age, Color, and Sex: 1950 to 1960," Series P-25, No. 310; ibid., "Preliminary Estimates of the Population of the United States, by Age and Sex: April 1, 1960 to July 1, 1971," Series P-25, No. 483; and unpublished data.

The female population of childbearing age (15 to 44 years) increased by only 5 percent during the 1950's but by 18 percent in the following decade as persons born during the "baby boom" began to enter the childbearing ages. Consequently, this segment of the population grew more slowly than the total population in the 1950's but more rapidly in the 1960's. In 1970, females in the childbearing ages constituted 21 percent of the total population compared with 20 percent in 1960 and 23 percent in 1950.

The population of working age (18 to 64 years old) increased during the period 1950 to 1970, as persons born in the high fertility years after World War II replaced much smaller cohorts who had in the meantime advanced beyond the age of 65. However, this intermediate age group declined as a proportion of the total population from 61 percent to 56 percent during these two decades, because of the more rapid growth of the younger and older age groups.

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The combined number of young persons (under 18) and elderly persons (65 and over) per 100 persons of working age (18 to 64 years old) increased rapidly during the 1950's from 64 to 82 and, although it declined to 78 in 1970, it still remained well above the 1950 level.

The elderly population (65 years old and over) increased by 35 percent during the 1950's and 21 percent during the 1960's. In 1970, 10 percent of the total population was 65 years old and over, as compared with 8 percent in 1950.

From 1950 to 1970, the sex ratio of the population (males per 100 females) dropped from 99 to 96 (table 3.3). The most pronounced change occurred in the age group 65 years and over, which fell from 90 in 1950 to 72 in 1970. This decline was largely attributable to the greater improvement in survival rates among females than among males in the older age groups. Another contributing factor was the decreasing number of survivors of the heavy immigration that occurred during the early years of the 20th century when far more men than women migrated to the United States.

Table 3.3 Sex Ratio of the Population of the United States, for Selected Functional Age Groups: 1950 to 1970

(As of July 1. Includes Alaska, Hawaii, and Armed Forces overseas)

Age	Males per 100 females		
	1970	1960	1950
All ages	95.8	97.8	99.3
Under 5 years	104.0	103.3	103.9
5-17 years	103.8	103.3	103.3
18-64 years	95.9	97.1	98.5
65 years and over	72.1	82.6	89.5

Source: U.S. Bureau of the Census, Current Population Reports, "Estimates of the Population of the United States, by Single Years of Age, Color, and Sex: 1900 to 1959," Series P-25, No. 311; and ibid., "Preliminary Estimates of the Population of the United States, by Age and Sex: April 1, 1960 to July 1, 1971," Series P-25, No. 483, tables 1, 7, and 8.

Marital Status

At any point in time, the distribution of the population by marital status usually reflects the changing impact of vital events over many previous years. The pattern of these events, in turn, is largely determined by the interaction of demographic variables with social, psychological, economic, and political pressures. But of special significance in the present analysis is a classification of marital status by age and sex.

When the distribution of the population by age and sex changes substantially as a consequence of sharp changes in birth, death, or migration rates, the availability of potential marital partners of the preferred age range tends to be adversely affected. Thus, in periods of rapid population growth through natural increase, the supply of women who are eligible for marriage increases a few years sooner than that of eligible men, because women generally marry at a younger age than men. In periods of prolonged decline in the rate of natural increase, the reverse situation develops. Moreover, cyclical changes in economic conditions and in attitudes concerning the desirability of living in the married state have incremental effects on the propensity of adults to marry and to remain married.

Recent trends standardized for age—The effects of the changing age structure on the marital status distribution since 1950 are clearly shown in table 3.4. For example, the unstandardized figures show an increase between 1950 and 1970 in the percent single for both men and women and a decrease in the percent married for both sexes, whereas the figures that were standardized for age show, in effect, that the opposite changes were occurring within most age groups. Among women, for whom the data are more consistently comparable (as noted below), the age-adjusted percent single shows a decline during the 1950's while the percent married shows a rise; but during the 1960's the percent single went up while the percent married went down. Thus, the more refined age-adjusted pattern for all adult women as a whole was one of increasing marriage in the 1950's and decreasing marriage in the 1960's. The continuing decline since 1950 in the percent of the population who were widowed, according to the age-adjusted figures, reflects improved survival rates through the middle years of life.

The results for men in table 3.4 are affected by the changing coverage of young men in the Current Population Survey, because

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the survey excludes men in military barracks and in military service overseas, whereas the number of men in barracks and overseas increased substantially between 1960 and 1970. For this reason these results for men are difficult to analyze.

The increase in divorce—The proportion of men and women who were divorced and had not remarried by the survey date increased considerably between 1950 and 1970, with most of the increase occurring in the 1960's, when divorce rates went up sharply. Although the proportion currently divorced is relatively small (between 2 and 4 percent), this measure disregards the fact that about three-fourths of the women and five-sixths of the men remarry after divorce. Data from the 1970 census show that 10 percent of the men and 11 percent of the women 14 years old and over had obtained a divorce at some time in their lives (Census, 1970, II-4C, table 1; also, table 3.12 below). This means that only a small proportion of the adults who had ever experienced divorce were still divorced at the time of the 1970 census.

Table 3.4 **Percent Distribution by Marital Status of the Population 14 Years Old and Over by Sex, Standardized for Age and Unstandardized: United States, 1950 to 1970**

Marital status	Male			Female		
	1970	1960	1950[1]	1970	1960	1950[1]
Percent of total.....	100.0	100.0	100.0	100.0	100.0	100.0
Unstandardized:						
Single.....	28.1	25.3	26.2	22.1	19.0	19.6
Married.....	66.7	69.1	68.0	61.9	65.6	66.1
Widowed.....	2.9	3.7	4.2	12.5	12.8	12.2
Divorced.....	2.2	1.9	1.7	3.5	2.6	2.2
Standardized:[2]						
Single.....	23.9	25.3	26.2	19.3	19.0	20.0
Married.....	70.8	69.1	67.4	64.9	65.6	63.9
Widowed.....	3.0	3.7	4.7	12.0	12.8	14.0
Divorced.....	2.4	1.9	1.7	3.8	2.6	2.1

[1]Excludes Alaska and Hawaii.
[2]Standardized on the basis of the age distribution in 1960.

Source: U.S. Bureau of the Census, Current Population Reports, "Marital Status, Economic Status, and Family Status: March 1957," Series P-20, No. 81, table 1; ibid., "Marital Status and Family Status: March 1965," Series P-20, No. 144, table 1; and ibid., "Marital Status and Family Status: March 1970," Series P-20, No. 212, table 1.

The proportions "ever divorced" that were cited above, however, refer to the population of all adult ages, including single persons who have not been subject to divorce and many elderly persons who were exposed to low rates of divorce three or more decades ago when they were in the age range during which most divorces occur. The results of a 1971 study that was designed to throw more light on the marriage history of adults in the United States were published in Census, **Current Population Reports**, 1971b. A projection of the results of this study, made by Glick and Norton (1973), showed that an estimated 25 to 29 percent of the women about 30 years old in 1971 would eventually end their first marriage in divorce. But in view of the further increase in the divorce rate since 1971 and allowing for the small proportion of women who will end a second marriage in divorce after their first had ended in widowhood, it seems reasonable to expect that somewhere between one-fourth and one-third of the women in the United States about 30 years old in 1973 may eventually end a marriage in divorce.

The postponement of marriage—Variations since 1950 in the median ages at which men and women have first married are shown in table 3.5. The median age declined between the early and middle 1950's by about one-half of a year for men and by about three-tenths of a year for women. The median ages at first marriage in 1956 for men (22.5 years) and women (20.1 years) were the lowest recorded in the history of the United States. Between 1960 and 1966 the median age at first marriage for men remained relatively constant at about 22.8 years, but during this period the corresponding age for women rose from 20.3 to 20.5 or 20.6 years.

This contrasting development may reflect an attempt to resolve the demographic phenomenon referred to as the "marriage squeeze" (Parke and Glick, 1967). This situation arose because during the mid-1960's more women 18 and 19 years old were entering the "marriage market" than men 21 and 22 years old; in this period, therefore, the number of women of prime marriageable ages was large in relation to the number of men of prime marriageable ages. This scarcity of young men was accelerated during this period by certain other factors, including the substantial increase in the size of the Armed Forces of the United States and by the increase in the proportion of persons enrolled in college. (In some other countries, a change in age at marriage by one sex is sometimes accompanied by a similar change by the other sex.)

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Besides the differential increase in the proportion of men and women who were remaining single, another partial solution to the scarcity of young marriageable men in the 1960's was for women to marry men more nearly their own age. The possibility that this course was followed is inferred from the declining differential between the ages of husbands and wives at first marriage. As recently as 1952, the median age of men at first marriage was 2.8 years older than that of their wives, according to the Current Population Survey (table 3.5). By the early 1970's, this difference was about one-half year smaller.

Table 3.5 Median Age at First Marriage by Sex: United States, 1950 to 1973

Year[1]	Male[2]	Female	Year[1]	Male[2]	Female
1973	23.2	21.0	1961	22.8	20.3
1972	23.3	20.9	1960	22.8	20.3
1971	23.1	20.9	1959	22.5	20.2
1970	23.2	20.8	1958	22.6	20.2
1969	23.2	20.8	1957	22.6	20.3
1968	23.1	20.8	1956	22.5	20.1
1967	23.1	20.6	1955	22.6	20.2
1966	22.8	20.5	1954	23.0	20.3
1965	22.8	20.6	1953	22.8	20.2
1964	23.1	20.5	1952	23.0	20.2
1963	22.8	20.5	1951	22.9	20.4
1962	22.7	20.3	1950	22.8	20.3

[1]Data for 1950-1959 exclude Alaska and Hawaii.

[2]Based on Current Population Survey data supplemented by data from the Department of Defense on marital status by age for men in the Armed Forces.

Source: U.S. Bureau of the Census, Current Population Reports, "Marital Status and Living Arrangements: March 1973," Series P-20, No.255, table D.

It is reasonable to believe that the marriage squeeze may have also been a contributing factor in the observed postponement of many youthful marriages in the 1960's, as compared with earlier marriage patterns. Thus, the recent rise in the age at first marriage has been associated with a rise in the percent single among young women (table 3.6). The proportion single among women under 35 years old increased by 20 percent between 1960 and 1970, with the largest increases occurring among women in the age groups 20 to 21 and 22 to 24 years old (25 percent and 28 percent, respectively).

Among the consequences of the delay of marriage has been the encouragement it has given to many young persons—especially young women—to pursue advanced educational goals or career

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aspirations before entering into a family-living situation. Moreover, by delaying marriage young persons may be developing a tendency toward more careful mate selection; and, since early marriages are more often unstable than later marriages, the postponed marriages of recent years may have more stability. Another possible consequence is that more of the young people who delay marriage will decide never to marry, but it is too early to state with confidence that this will occur.

Among women 35 years old and over, the impressive display of consistently smaller—rather than larger—proportions single in 1970 than in 1960 deserves special comment. These older women were born during a long period of declining fertility. Therefore, the number of women of the principal marriageable ages tended to be relatively scarce, year after year, because men of the appropriate age for them to marry were born earlier when births were more numerous. Thus, the marriage squeeze operated in opposite directions for those above age 35 and for those under age 35 in 1970. In future years, persons under 10 years old in 1970, who were born during a period of declining fertility, will undergo a new phase of the marriage squeeze as they approach marriage; at that time, there will be another general scarcity of women of principal ages for marriage.

Table 3.6 Percent Single by Age, for Women 14 Years Old and Over: United States, 1970 and 1960

Age	1970	1960	Change, 1960-70	Ratio: $\frac{1970}{1960}$
All women, 14 years old and over	22.6	19.0	3.6	1.19
Under 35 years old	45.1	37.6	7.5	1.20
14-17 years	96.2	94.6	1.6	1.02
18-19 years	76.6	67.8	8.8	1.13
20-21 years	50.7	40.5	10.2	1.25
22-24 years	26.0	20.3	5.7	1.28
25-29 years	12.2	10.5	1.7	1.16
30-34 years	7.4	6.9	.5	1.07
35 years old and over	6.5	7.3	-.8	.89
35-39 years	5.9	6.1	-.2	.97
40-44 years	5.4	6.1	-.7	.89
45-49 years	5.3	6.5	-.2	.82
50-54 years	5.7	7.6	-.9	.75
55 years and over	7.5	8.3	-.8	.90

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 4C, Marital Status, table 1; and 1960 Census of Population, Vol. II, 4E, Marital Status, table 1.

Social and economic variations in age at first marriage—One of the reports of the 1970 census shows variations in mean age at first marriage for persons 30 to 49 years old (Census, 1970, I-U.S., table 211). This report shows that white men and women generally married at younger ages than Negroes; foreign-born persons were about 2 years older at first marriage, on the average, than native persons; persons who were married more than once originally married younger than those married only once; persons who married a spouse of a different race were older at first marriage than those who married a spouse of the same race; men with a college education and women with at least 4 years of high school first married at an older age than persons with fewer years of school completed; and those with high incomes had the highest mean age at first marriage.

Marriage, divorce, and remarriage trends and variations—As a net effect of recent changes in the age composition and marriage propensities of young persons, the (first) marriage rate per 1,000 single women 14 to 44 years of age decreased by 20 percent between 1948-50 and 1969-71 (table 3.7). However, during the same period the divorce rate per 1,000 married women under 45 years old rose by about one-half, and the remarriage rate per 1,000 divorced or widowed women under 55 years old increased by one-fourth. The increasing remarriage rate is undoubtedly associated with the rising divorce levels. The 1969-71 annual rate of 26 divorces per 1,000 married women under 45 has exceeded the post-World War II high level of 24 per 1,000.

The rapid increase in the divorce rate during the 1960's came at a time when divorce laws were being liberalized and when the social structure at large was in a transitory state. Young persons were confronted with issues like the war in Vietnam, growing social and economic problems in urban centers, and the changing role of women in American society, including the declining role of motherhood and the increasing role of gainful worker. Meantime, there has been an overall lessening of negative social sanctions with respect to divorce. In short, it was a time when basic social institutions, values, and ascribed roles were being questioned and tested.

The occurrence of divorce has been far from even among the several social and economic groups, as may be seen in Census, 1970, II-4C, table 8. More than one-fourth of the men ever married 35 to 44 years old who had first married at a relatively young age (before

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Table 3.7 Number and Rate of First Marriages, Divorces, and Remarriages: United States, 3-Year Averages, 1921 to 1971

Period	First marriages		Divorces		Remarriages	
	Thous.	Rate[1]	Thous.	Rate[2]	Thous.	Rate[3]
1921-23	990	99	158	10	186	98
1924-26	992	95	177	11	200	99
1927-29	1,025	94	201	12	181	84
1930-32	919	81	183	10	138	61
1933-35	1,081	92	196	11	162	69
1936-38	1,183	98	243	13	201	83
1939-41	1,312	106	269	14	254	103
1942-44	1,247	108	360	17	354	139
1945-47	1,540	143	526	24	425	163
1948-50	1,326	134	397	17	360	135
1951-53	1,190	122	388	16	370	136
1954-56	1,182	120	379	15	353	129
1957-59	1,128	112	381	15	359	129
1960-62	1,177	116	407	16	372	133
1963-65	1,323	110	452	17	404	139
1966-68	1,488	110	535	20	463	150
1969-71	1,604	107	702	26	569	168

[1]First marriages per 1,000 single women 14 to 44 years old.
[2]Divorces per 1,000 married women 14 to 44 years old.
[3]Remarriages per 1,000 widowed and divorced women 14 to 54 years old.

Source: Paul C. Glick and Arthur J. Norton, 1973, "Perspectives on the Recent Upturn in Divorce and Remarriage," Demography, Vol. 10, No. 3, table 1. Copyright by the Population Association of America (Washington, D.C., 1973). Reprinted by permission.

20) were known to have had a divorce before the census date, whereas only about 14 percent of those who first married while in their 20's were known to have been divorced. In addition, men of this age range were more likely to have been divorced if they had a low level of educational attainment and a low income than were men with higher levels of education and income. Women generally showed the same pattern of likelihood of divorce as their male counterparts with respect to age at first marriage and years of school completed. Also, a higher proportion (22 percent) of women 35 to 44 years old who were in the labor force in 1970 were known to have been divorced than women of the same age who were not in the labor force (13 percent); but information is not available to show how many of these women entered the labor force after becoming divorced (to support themselves and their children, if any) and how many were already working before they took steps to become divorced. Moreover, about twice as large a proportion of the women of this age range who had no children living with them

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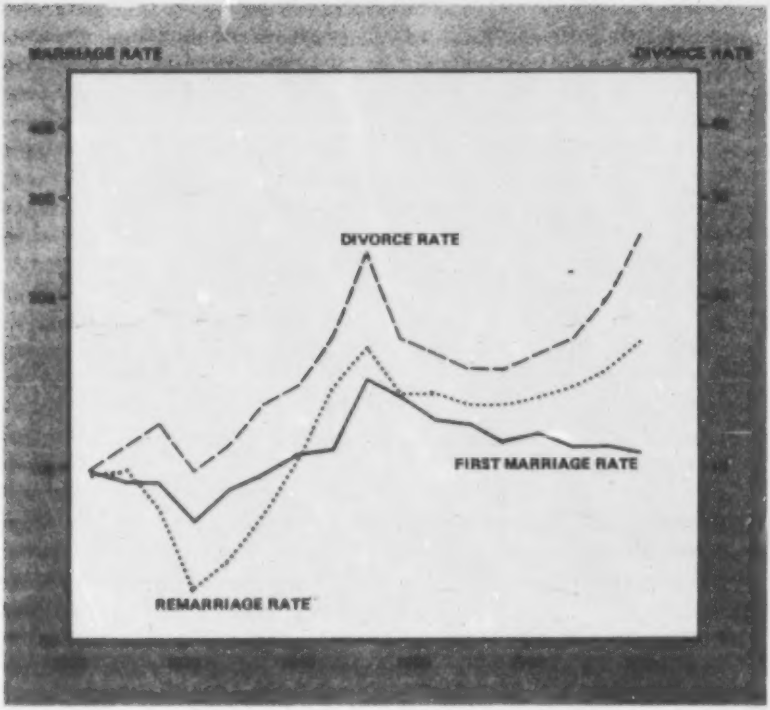
were known to have been divorced as compared with those who had some children.

Figure 3.2 **First Marriage, Divorce, and Remarriage Rates: United States, 1921 to 1971**



Source: Paul C. Glick and Arthur J. Norton, 1973, "Perspectives on the Recent Upturn in Divorce and Remarriage," **Demography**, Vol. 10, No. 3, table 1. Copyright by the Population Association of America (Washington, D.C., 1973). Reprinted by permission.

The data discussed here seem to demonstrate that a fundamental modification of life styles and values relating to marriage has been taking place during the last two decades. Early marriage has declined, whereas marital disruption by divorce has increased. The predictability of events in this sphere during the next decade is tenuous at best, particulary since marital behavior is so strongly affected by prevailing social, psychological, and economic conditions. Although the number of divorces in the United States has continued to increase about 10 percent per year over the last 5 years, there are several indicators that may portend a period of

greater marital stability before another decade has passed. Insofar as low income, low education, and early age at marriage increase the probability of eventual divorce, current trends away from these conditions are consistent with a favorable prognosis of future marital stability. Furthermore, American adults as a whole apparently prefer being married as judged by the large proportion of divorced persons who remarry.

Families, Households, and Living Arrangements

The "typical" family undergoes numerous substantial changes during the cycle of married life, from marriage through childbearing, the departure of the children, and the eventual dissolution of marriage with the death of one spouse. The typical family itself has changed greatly over the past 20 years because marriage is now occurring about a year later, couples are having approximately one less child, and more couples are surviving jointly for longer periods after their children marry (Norton, 1974, and Glick and Parke, 1965). Many more unmarried persons, especially young people and the elderly, have been establishing or continuing to maintain separate living arrangements.

Sex and marital status of family head—From 1950 to 1970, the number of families in the United States has increased from 38 to 51 million (table 3.8). (Here a family is defined as two or more related persons who occupy a house or apartment.) During the 1950's and 1960's, most of the increase in the number of families consisted of husband-wife families; however, more of the increase consisted of families with a female head during the 1960's than during the 1950's. Of all families, the great majority—six out of every seven—were still maintained by a married couple in 1970. The average size of the family declined slightly over the two decades, because an increase in the number of children per family was more than balanced by a decline in the number of adults.

The number of families with a female head increased particularly rapidly—by nearly one-third—during the 1960's and early 1970's (table 3.9), with the increase concentrated largely among families of divorced or separated women. Among white women in 1970, there were twice as many divorced heads of families as separated heads, whereas among Negro women the situation was reversed. The substantial increase in the number of families with a female head is related to many factors, including the rapid rise in female employment during the 1960's, the absence of many

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husbands from the home for service in the Armed Forces, the continued increase in unwed mothers, and the sharply upward trend in separation and divorce since 1960.

Table 3.8 Families by Type: United States, 1950 to 1970

(Numbers in thousands)

Type of family	1970	1960	1950	Change	
				1960–1970	1950–1960
All families	51,143	45,149	38,453	5,994	6,696
Husband-wife	44,002	39,657	33,486	4,345	6,171
Other male head	1,626	1,295	1,396	331	-101
Female head	5,515	4,196	3,571	1,319	625
Average size	3.56	3.63	3.72	-.07	-.09
Members under 18	1.35	1.41	1.21	-.06	.20
Members 18 and over	2.21	2.22	2.51	-.01	-.29

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 4A, Family Composition, table 5; 1960 Census of Population, Vol. II, 4A, Families, table 6; and 1950 Census of Population, vol. IV, 2A, General Characteristics of Families, table 4.

Table 3.9 Female Family Heads by Marital Status: United States, 1973, 1970, and 1960

(Numbers in thousands)

Marital status	1973	1970	1960	Change, 1970–73		Change, 1960–70	
				Number	Percent	Number	Percent
Female family heads	6,007	5,515	4,196	1,092	19.8	1,319	31.4
Married, spouse absent	1,579	1,247	914	332	26.6	333	36.4
Separated	1,289	922	588	367	39.8	334	56.8
Other	290	325	326	-35	-10.8	-1	-.3
Widowed	2,468	2,265	2,093	203	9.0	172	8.2
Divorced	1,712	1,312	702	400	30.5	610	86.9
Single	848	691	487	157	22.7	204	41.9
Own children under 18 per family	1.40	1.28	1.51	.12	9.4	-.23	-15.2

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 4A, Family Composition, table 7; 1960 Census of Population, vol. II, 4A, Families, table 6; and Current Population Reports, "Marital Status and Living Arrangements: March 1973," Series P-20, No. 255, tables 1 and 7.

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Along with the increase in families with a female head has come an increase during the 1960's from 8 percent to 12 percent in the proportion of persons under 18 years of age who were living with their mother only (table 3.10). Meantime, the proportion of children under 18 living with both parents has declined from 88 to 83 percent. Among Negro children under 18 years of age in 1973, the proportion living with both parents was quite small—52 percent—whereas 38 percent were living with their mother only, and 10 percent lived apart from their mother. The sharp decline in the birth rate since 1960 has brought a corresponding decrease in the proportion of all children in the home who are of preschool age and an increase in the proportion who are of school age. The unmarried mother can more easily provide care for older children while she works in order to maintain a separate home for herself and her children.

Table 3.10 Persons Under 18 Years of Age, by Presence of Parents: United States, 1970 and 1960

(Numbers in thousands)

Presence of parents	1970		1960	
	Number	Percent	Number	Percent
Persons under 18 years old.....	69,523	100.0	64,310	100.0
Living with both parents.....	57,744	83.1	56,287	87.5
Living with father only.....	1,339	1.9	726	1.1
Living with mother only.....	7,979	11.5	5,105	7.9
Living with neither parent.....	2,461	3.5	2,192	3.4

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 4B, Persons by Family Characteristics, table 1; and 1960 Census of Population, Vol. I, U.S. Summary, table 185.

Family composition—The number of families having 3 or more own children under 18 years old increased by 3.8 million, or 70 percent, in the decade 1950 to 1960; however, between 1960 and 1970, the largest numerical and proportional increases (3.5 million, or 18 percent) were for those families having no own children (table 3.11). A corresponding trend is seen in the distribution of families by size over the period 1950 to 1970. In the earlier decade, most of the increase in families was among those having four or more members, whereas in the more recent decade over half of the increase in families was among those having only two members.

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Table 3.11 **Families by Number of Own Children Under 18 Years Old and by Size (Entire Number of Family Members): United States, 1950 to 1970**

(Numbers in thousands)

Number of own children under 18 and size of family	1970	1960	1950	Percent change	
				1960–1970	1950–1960
All families.....	51,143	45,149	38,453	13.3	17.4
Own children under 18:					
No own children.....	22,924	19,458	18,607	17.8	4.6
1 own child.....	9,226	8,310	8,058	11.0	3.1
2 own children.....	8,700	8,119	6,340	7.2	28.1
3 or more.....	10,294	9,261	5,449	11.2	70.0
Size of family:					
2 persons.....	18,119	14,748	12,886	22.9	14.4
3 persons.....	10,622	9,761	9,535	8.8	2.4
4 persons.....	9,689	8,998	7,697	7.7	16.9
5 persons.....	6,153	5,757	4,142	6.9	39.0
6 persons.....	3,392	3,042	2,034	11.5	49.6
7 or more.....	3,166	2,842	2,159	11.4	31.6
Median size.....	2.70	2.80	2.66	(X)	(X)

X Not applicable.

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 4A, Family Composition, tables 5 and 6; 1960 Census of Population, Vol. II, 4A, Families, tables 4 and 5; and 1950 Census of Population, Vol. IV, 2A, General Characteristics of Families, tables 4 and 9.

These developments reflect, in large part, the changes in fertility between the mid-1930's, when the oldest children involved in the comparison were born, and the late 1960's, when the youngest children were born. In between these two periods of low fertility there had been a sustained period of high fertility.

Composition of households and group quarters—The results of the 1970 census show that of all persons 14 years old and over about 96 percent lived in households, with 86 percent being members of families (table 3.12). About two out of every three persons of this age range were classified as being either the head of a family or the wife of the family head. Considering all persons 14 and over, about 1 in every 10 had been widowed, and 1 in 10 had been divorced after the person's first or most recent marriage or both. However, persons who had been widowed or divorced constituted a much larger proportion of persons living as primary

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individuals (that is, persons maintaining their own household while living alone or with nonrelatives only). Among these persons, 48 percent were known to have been widowed and 20 percent to have been divorced. A particularly large proportion of persons in homes for the aged had been widowed (63 percent), whereas a large proportion in correctional institutions had been divorced (22 percent).

The increase in households since 1950 has been greater than that of families, because the number of primary individuals has grown at a more rapid pace than that of families. According to the Current Population Survey, about 81 percent of all household heads in 1970 were also heads of families; the remaining 19 percent of household heads consisted of primary individuals (table 3.13). By contrast, in 1950 about 89 percent of households included a family head, whereas only 11 percent included a primary individual. The 1970 census showed that only 4 percent of household heads shared their living quarters with nonrelatives. However, only 2 percent of families but 11 percent of primary individuals had one or more unrelated household members. Altogether, one out of every six household heads in 1970 lived entirely alone.

Table 3.12 Composition of Household and Group Quarters Residents 14 Years Old and Over, by Whether Known To Have Been Widowed or Divorced: United States, 1970

Numbers in thousands

Composition	Total	Known to have been--		Total	Percent known to have been--	
		Widowed	Divorced		Widowed	Divorced
Total, 14 and over	149,396	15,282	15,790	100.0	10.2	10.6
In households	143,766	14,506	15,447	100.0	10.1	10.7
In families	128,686	8,309	12,528	100.0	6.5	9.7
Head	51,143	4,296	6,727	100.0	8.4	13.2
Wife	43,891	1,613	4,432	100.0	3.7	10.1
Other relatives	33,652	2,400	1,369	100.0	7.1	4.1
Primary individuals	12,430	5,903	2,535	100.0	47.5	20.4
Secondary individuals	2,650	294	384	100.0	11.1	14.5
In group quarters	5,630	776	343	100.0	13.8	6.1
Secondary individuals	3,585	86	118	100.0	2.4	3.3
Inmates of institutions	2,045	690	225	100.0	33.7	11.0
Mental hospital	585	59	56	100.0	10.1	9.6
Home for the aged	934	589	81	100.0	63.1	8.7
Correctional institution	332	12	74	100.0	3.6	22.3
Other	194	31	14	100.0	16.0	7.2

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 4B, Persons by Family Characteristics, table 7.

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Table 3.13 Households by Type: United States, 1970 and 1950

(Numbers in thousands)

Type of household	1970		1950		Change, 1950-1970	
	Number	Percent	Number	Percent	Number	Percent
Total households....	63,401	100.0	43,554	100.0	19,847	45.6
Primary families.....	51,456	81.2	38,838	89.2	12,618	32.5
Husband-wife.....	44,728	70.5	34,075	78.2	10,653	31.3
Other male head.....	1,228	1.9	1,169	2.7	59	5.0
Female head.....	5,500	8.7	3,594	8.3	1,906	53.0
Primary individuals.....	11,945	18.8	4,716	10.8	7,229	153.3
Male.....	4,063	6.4	1,668	3.8	2,395	143.6
Female.....	7,882	12.4	3,048	7.0	4,834	158.6
Average size.....	3.14	(X)	3.37	(X)	-.23	-6.8

X Not applicable.

Source: U.S. Bureau of the Census, Current Population Reports, "Households and Families, by Type: March 1973," Series P-20, No. 251, table 4.

Because the rate of household increase has exceeded the rate of population growth since 1950, the average size of household has declined from 3.37 persons per household in 1950 to 3.14 persons per household in 1970 and to 3.01 persons in 1973. This decline has occurred because of the decrease in the birth rate since the mid-1950's, which lowered the number of children per household, and the concurrent large increase in the number of one-person households among both the young and the elderly.

Living arrangements.—One of the new developments in the living arrangements of the household population since 1950 has been the marked increase in the number of elderly persons, especially widows, who maintain their own households as primary individuals while living alone or with persons unrelated to them. These female household heads 65 years old and over increased from 2.3 million in 1960 to 4.0 million in 1970, or 73 percent (table 3.14), while the total number of females of this age increased by only 28 percent (table 3.1). This development indicates that elderly persons have been better able to care for themselves since receiving improved health care benefits and more adequate social security or other benefits for the aged over the past two decades. In earlier times, many of these persons would have lived in the homes of relatives (generally their own children).

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Also impressive has been the increase over the past decade in the number of young adults who have been maintaining their own households apart from relatives. Although the number of female primary individuals under 35 years old increased by almost 27 percent between 1950 and 1960, the corresponding increase was 114 percent for the decade 1960 to 1970. Meanwhile, male primary individuals under 35 years old have more than doubled their numbers in each of the past two decades, with an increase of 119 percent between 1950 and 1960 and 144 percent between 1960 and 1970. This recent rapid growth of apartment dwelling on the part of young "unmarrieds" has occurred at a time when college enrollment has been rising and when more and more young people have been postponing marriage (or remarriage) until after they have had a few more years of work experience.

Table 3.14 Proportion of Household Heads Who Were Primary Individuals, by Age and Sex: United States, 1950 to 1970

(Numbers in thousands)

Type of household	Under 35 years old		35-64 years old		65 years old and over	
	Male	Female	Male	Female	Male	Female
Household heads, 1970.....	13,813	2,144	28,622	6,043	7,153	5,099
Primary individuals.....	1,068	859	1,710	2,950	1,191	3,985
Percent of total.....	7.7	40.1	6.0	48.8	16.7	78.2
Household heads, 1960.....	11,090	1,150	25,920	5,059	6,061	3,330
Primary individuals.....	438	401	1,282	2,425	904	2,304
Percent of total.....	3.9	34.9	4.9	47.9	14.9	69.2
Household heads, 1950.....	10,356	693	22,210	3,767	4,366	2,077
Primary individuals.....	200	316	977	1,526	576	1,144
Percent of total.....	1.9	45.6	4.4	40.5	13.2	55.1
Percent increase in primary individuals:						
1960 to 1970.....	143.8	114.2	33.4	21.6	31.7	73.0
1950 to 1960.....	119.0	26.9	31.2	58.9	56.9	101.4

Source: U.S. Bureau of the Census, Current Population Reports, "Marital Status and Household Characteristics: March 1950," Series P-20, No. 33, table 9; ibid., "Household and Family Characteristics: March 1960," Series P-20, No. 106, table 9; and ibid., "Household and Family Characteristics: March 1970," Series P-20, No. 218, table 17.

Another significant change in living arrangements is the increasing number of couples, especially young couples, who are reported as sharing the same house or apartment without legalizing

their union by means of a formal ceremony. (The following data exclude persons reported as living in a common-law union; according to U.S. census usage, persons reported as members of a common-law union are classified in the same category as those with a formal marriage.) The data on this subject were collected only in the 1970 and 1960 censuses and show the number of adults sharing their living quarters with an unrelated "partner" of the opposite sex. Thus, in 1970, of the 12.4 million primary individuals (household heads with no relatives present), 1.3 million had 1 to 4 nonrelatives in the household. Of the 1.3 million, 143,000, or 11 percent, were reported as sharing their living quarters with an adult partner of the opposite sex; the corresponding number in 1960 was only one-eighth as large, 17,000, representing 2 percent of the 0.9 million primary individuals with nonrelatives present (Census, 1970, II-4B, table 11, and 1960, II-4B, table 15). In 1970, 105,000 (nearly three-fourths) of those sharing their quarters with such a partner were men with a woman as a partner. The largest proportional increase during the 1960's was recorded for men under 25 years old. However, only 10 percent of these younger men as compared with 20 percent of the older men in 1970 with nonrelatives present had an adult woman as a partner in their household. Generally the partner was in the same age group as the household head or in an adjacent age group.

Also, throughout the 1960's a substantial but unknown number of communes or other experimental group living arrangements have sprung up throughout the Nation in both urban and rural areas. The commune movement has been a serious attempt by many young adults to find more satisfying relationships in their living arrangements than they could achieve through traditional family life.

Other family characteristics—While there is much evidence of change in patterns of living arrangements from 1950 to 1970, there is also evidence of improvement in the quality of family living. The median family income has increased from around $3,100 in 1949 to $9,600 in 1969. The number of married couples who were sharing the living quarters of others has declined from over 2 million in 1950 to 600,000 in 1970. The family head of today is better educated, the median number of years of school completed being 12.1 years in 1970 as compared with 9.1 years in 1950. The wife's task as a homemaker, with smaller families and modern appliances, is easier, so that she is able to accept greater responsibilities outside the home. The percent of husband-wife families with the wife in the

labor force has increased from 21 percent in 1950 to 40 percent in 1970. The role of the wife as a labor force participant is discussed further in the chapter on "The Labor Force."

Literacy, Education, and School Enrollment

The three indicators—literacy, educational attainment, and school enrollment—relating to the education of the population are derived from information collected in population censuses and surveys. Literacy is the ability to read and write. Educational attainment shows the highest level of formal schooling that the population has completed in terms of elementary school, high school, or college. School enrollment is measured by the number of persons of school age who are enrolled in school at each educational level.

Literacy—A question on literacy was last asked in the decennial census of the United States in 1930, when only 4 percent of the population 10 years old and over was illiterate. Subsequent censuses have provided more informative data on the number of years of school completed. National data on literacy in the United States since 1930 have been collected through periodic sample surveys. The latest sample information, collected by the Bureau of the Census in November 1969, shows that the proportion of the population in the United States 14 years old and over who could not read and write had declined to only 1 percent, or 1.4 million persons (table 3.15).

Literacy rates in the United States differ by age, sex, race, and amount of education. Persons with little or no formal schooling are, of course, the most likely to be reported as illiterate. Yet, only 57 percent of those 14 years old and over in 1969 who had never attended school were reported as illiterate; this fact provides evidence that many persons learn to read and write somewhere outside the regular school system. Moreover, the illiteracy rate was much smaller with each additional year of school completed. Among those with 2 years of school, only 22 percent were reported as illiterate, and only 2 percent of those with 5 years of school. Some of these persons may have been able to read several years earlier but had lost their ability to do so through lack of practice. Persons who had completed 6 or more years of school were assumed to be currently literate, although the degree of literacy for some may have been minimal.

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Table 3.15 Percent Illiterate in the Population, by Race: United States, 1870 to 1969

(Data for 1870 to 1940 are for the population 10 years old and over; data for 1947, 1952, 1959, and 1969 are for the population 14 years old and over)

Year	Total	White	Other
1969	1.0	0.7	[1]3.6
1959	2.2	1.6	7.5
1952	2.5	1.8	10.2
1947	2.7	1.8	11.0
1940	[2]2.9	[2]2.0	[2]11.5
1930	4.3	3.0	16.4
1920	6.0	4.0	23.0
1910	7.7	5.0	30.5
1900	10.7	6.2	44.5
1890	13.3	7.7	56.8
1880	17.0	9.4	70.0
1870	20.0	11.5	79.9

[1]Negro only in 1969.
[2]Estimated.

Source: U.S. Bureau of the Census, Current Population Reports, "Illiteracy in the United States: November 1969," Series P-20, No. 217, table A.

The illiteracy rate was highest among older persons. Those 65 years old and over were three times as likely to be illiterate as those under 65. The older persons had completed their schooling when a high school education was not the norm as it is today. A significant part of the decline in the proportion illiterate in the total population has resulted from the declining proportion of underschooled persons in the middle and younger years of life. Accordingly, a larger proportion of illiterates was concentrated in the oldest age group in 1969 than in earlier years.

Both the number of illiterates and the illiteracy rates were about the same for men and women in 1969. This was in contrast with the situation 10 years earlier when men were more likely to be illiterate than women. The change is attributable in part to the fact that women are living longer than men. Older persons with little schooling are being replaced by better educated younger persons with more schooling at a faster rate for men than for women.

In 1969, Negroes were more likely than whites to be reported as illiterate, but the proportion (4 percent) for Negroes was quite

small. The formal schooling received by the black population seems not to have been as effective in producing lasting literacy as that received by the white population. This inference is based on the fact that the proportion of Negroes who were reported as illiterate despite having completed some years of school was higher than that for whites. Among the illiterate Negroes, one-half reported that they had completed some years of school, as compared with only about one-third of the illiterate whites.

Educational attainment—In the recent history of the United States, constantly increasing levels of education have been attained by the population. Larger numbers and proportions of the population are now completing high school and college than ever before. These larger numbers of well-educated adults have provided an increasingly skilled labor force and a more articulate and well-informed public.

The educational level of the adult population has changed in the last 20 years from one where a majority had not completed high school to one where a majority has completed high school and where an increasing proportion has completed some years of college. The proportion of adults 25 years old and over who were high school graduates was only 39 percent in 1952 (table 3.16). In 1966, for the first time in the history of the United States, half of the adults were at least high school graduates, and in 1972 this proportion had increased to 58 percent.

About one-fourth of the adults in the United States have had some college or university training; 23 percent of the population 25 years old and over in 1972 had completed at least 1 year of college. Half of these persons (12 percent) had completed 4 or more years of college. Twenty years ago only 15 percent of the adult population had completed any years of college and 7 percent had completed at least 4 years of college. The total number of persons in the United States who have completed some years of college is considerable—33.2 million in 1972, including 15.2 million who had completed 4 or more years of college.

The modal, or most frequently occurring, year of school completed by the population has changed over time. When today's elders were young, it was customary to discontinue education after the completion of elementary school, which was generally the eighth grade. Accordingly, the eighth grade was the modal year of

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school completion for persons 65 years old and over in 1972. However, for adults who were under 65 years of age in 1972, the modal year of completion was the 12th grade. Each younger cohort has been staying in school longer. Among adults who were young enough in 1972 to have recently graduated from college (those 25 to 29 years old), 8 out of every 10 (80 percent) had graduated from high school; nearly half (45 percent) of the high school graduates of this age had completed at least a year of college; more than half (53 percent) of those who had completed at least a year of college had graduated from college; and one-third (36 percent) of those who had graduated from college had completed 1 or more years of graduate school training.

Table 3.16 **Level of School Completed by Persons 25 Years Old and Over: United States, 1940 to 1972**

Year	Total (thous.)	Percent distribution				
		Total	Not high school graduate	High school graduate		
				4 years of high school or more	1 year of college or more	4 years of college or more
1972	111,133	100.0	41.8	58.2	22.9	12.0
1971	110,627	100.0	43.6	56.4	22.1	11.4
1970	109,310	100.0	44.8	55.2	21.2	11.0
1969	107,750	100.0	46.0	54.0	20.5	10.7
1968	106,469	100.0	47.4	52.6	20.1	10.5
1967	104,864	100.0	48.8	51.1	19.5	10.1
1966	103,876	100.0	50.1	49.9	18.7	9.8
1965	103,245	100.0	51.0	49.0	18.3	9.4
1964	102,421	100.0	52.0	48.0	18.0	9.1
1962	100,664	100.0	53.7	46.3	18.1	8.9
1959	97,478	100.0	56.3	43.7	16.3	8.1
1957	95,630	100.0	58.4	41.6	15.1	7.6
1952	88,358	100.0	61.2	38.8	14.7	7.0
1947	82,578	100.0	67.0	33.1	12.2	5.4
1940	74,776	100.0	75.5	24.5	10.1	4.6

Source: U.S. Bureau of the Census, Current Population Reports, "Educational Attainment: March 1972," Series P-20, No. 243, table A.

Gains have been made by both sexes in educational attainment during the past 20 years, but adult men have made greater gains than adult women. In 1952, 41 percent of the women but only 35 percent of the men were high school graduates. However, in 1972,

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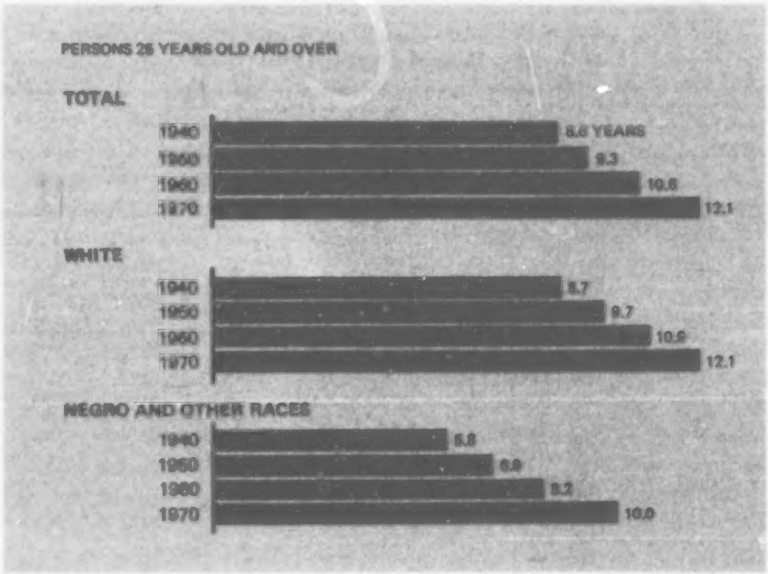
58 percent of both men and women were high school graduates. In 1952, the men who did graduate were more likely than the women to have continued their education in college. The net effect was that in 1952 the men were slightly more likely than the women to have completed some years of college and also to have completed 4 or more years of college. By 1972, the men were even more likely to have completed some years of college. The difference between the sexes in the proportion with some college or university training was 7 percentage points in 1972, whereas it had been only 2 percentage points in 1952.

Figure 3.3 **Median Years of School Completed for Persons 25 Years Old and Over: United States, 1940 to 1970**



Source: U.S. Bureau of the Census, **1970 Census of Population**, Vol. I, **U.S. Summary**, figure 57.

There are ethnic differences in the level of educational attainment in the United States (figure 3.3). The white, the Japanese, and the Chinese populations in the United States are more likely to have completed high school and also more likely to have had some college training than are the Negro and American Indian populations and persons of Spanish heritage. However, all groups are making significant gains in educational attainment. Among the younger adult whites (those 25 to 29 years old in 1972), 82 percent were high school graduates as contrasted with 63

percent of those 45 to 54 years old. The corresponding proportions of the whites who had completed some years of college were 37 percent for the younger adults and 22 percent for the older adults. In the meantime, the younger Negroes have doubled the proportion who were high school graduates (64 percent of those 25 to 29 years old versus 31 percent of those 45 to 54 years old) and doubled the proportion who had completed some years of college (21 percent of the younger age group versus 10 percent of the older group). Thus, the rate of increase was greater for the Negroes in both high school and college attainment, but the absolute amount of the difference in college attainment actually increased. Among adults of Spanish heritage, the average educational level of men was slightly above that of Negro men, but the average educational level of women was slightly below that of Negro women.

School enrollment—In the United States, most States have compulsory attendance laws that require all children to attend school from ages 7 to 16. In fact, almost all children 5 through 17 years of age are enrolled in school and thus receive an extensive education throughout their childhood and adolescence before entering into the labor market and/or marriage.

Formal schooling in the United States can begin at age 3 in nursery school, where enrollment has been a fast-growing phenomenon. In less than a decade, between 1964 and 1972, the number of children enrolled in nursery school increased by 171 percent to a record high of 1.3 million. Sharply rising enrollment rates more than offset the effect of the decline in the annual number of births. About 69 percent of the children in nursery school were in private schools; most public schools (supported by a State or local government) do not have nursery school facilities. Despite the sharp rise in nursery school enrollment, three out of every four children 3 and 4 years of age were not enrolled in nursery school in the fall of 1972 (table 3.17).

Most of the children in kindergarten are 5 years old. Five out of every six 5-year-olds in the fall of 1972 attended kindergarten or elementary school. Most public school systems in the United States include kindergarten instruction, and most (84 percent) of the 3.1 million children enrolled in kindergarten in the fall of 1972 were enrolled in public schools.

In the U.S. elementary schools (grades 1 to 8) 32.2 million pupils were enrolled in October 1972. Because of the decline in the

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number of births in the United States during the 1960's, the number of pupils enrolled in elementary school in 1972 was somewhat lower than in 1970 when there was an historic high of nearly 34 million pupils. Most of the elementary school pupils are enrolled in public schools (89 percent); the number of pupils enrolled in private elementary schools has also been declining in recent years after reaching a peak in 1965. The students who attend elementary school are usually 6 to 13 years old; nearly all (99 percent) of the children in this age range are enrolled in school.

Table 3.17 Enrollment Status of the Population 3 to 34 Years Old, by Age: United States, October 1972

(Numbers in thousands. Civilian noninstitutional population)

Age	Total population	Enrolled in school				
		Total		Below college level	In college	
		Number	Percent of population		Total	Full time
Total, 3-34 years....	109,585	60,142	54.9	51,829	8,313	6,314
3-4 years.....	6,782	1,655	24.4	1,655	-	-
5-6 years.....	6,896	6,340	91.9	6,340	-	-
7-9 years.....	11,602	11,488	99.0	11,488	-	-
10-13 years.....	16,532	16,419	99.3	16,419	-	-
14-15 years.....	8,295	8,098	97.6	8,093	5	5
16-17 years.....	8,064	7,169	88.9	6,879	290	276
18-19 years.....	7,462	3,458	46.3	778	2,680	2,517
20-21 years.....	6,955	2,187	31.4	71	2,116	1,886
22-24 years.....	10,162	1,505	14.8	44	1,461	956
25-29 years.....	14,702	1,259	8.6	30	1,229	507
30-34 years.....	12,132	563	4.6	33	531	167

- Represents zero or rounds to zero.

Source: U.S. Bureau of the Census, Current Population Reports, "School Enrollment in the United States: 1972," Series P-20, No. 247, table 1.

The number of students enrolled in high school (grades 9 to 12) in 1972 was 15.2 million, of whom nearly all (92 percent) were enrolled in public schools. Among the population of high school age (those 14 to 17 years old), 93 percent were enrolled in school, including both the white and black population of this age range. Only a very few students drop out of school when they reach age 16; in 1972, 85 percent of the 18- and 19-year-olds were either still enrolled in school or had completed their high school education.

Most of the adults in the United States who have attended school below the college level were enrolled in 12-year school systems with 8 years of "elementary school" and 4 years of "high school." During recent decades, however, the trend is for the enrollment in the seventh and eighth grades to shift from an elementary to a "secondary" organization, with a resultant 6-year elementary and 6-year secondary distribution. However, throughout the independent school systems in the United States, many different combinations of grades are found in the "junior" and "senior" high schools that, together, constitute the secondary school level. For this reason, nationwide statistics on school enrollment are still generally presented in terms of 8 years of elementary school and 4 years of high school.

Colleges and universities in the United States had an enrollment in the fall of 1972 of 8.3 million students under 35 years old. Both the number of persons of the principal ages for college attendance and the percent of these persons who are enrolled in college have increased tremendously in the past 20 years. The 13.0 million persons 18 to 24 years old in 1952 were born during the period 1928 to 1934 when the birth rate was relatively low. However, the 24.6 million persons 18 to 24 in 1972 were born during the "baby boom" after World War II. The number of persons of this age range who were enrolled in college increased from 1.5 million in 1952 to 6.3 million in 1972, not only because there were 11.6 million more persons of college age, but also because the proportion enrolled in college increased from 11 percent to 25 percent. In addition, about 3 percent of the 18- to 24-year olds were college graduates in 1950 as compared with 6 percent in 1970. Incidentally, the 1970 census showed that nearly one-half million persons 35 years old and over were attending college and that one-third of a million were attending school below the college level (Census, 1970, II-5A, table A-8).

The recent past has seen a dramatic increase in the number and percent of Negroes in the United States who are enrolled in college. In the 8 years between 1964 and 1972 the number of black students enrolled in college increased from 234,000 to 727,000, or by more than 200 percent. Although the proportion of 18- to 24-year-old black persons enrolled in college increased from 8 percent in 1964 to 18 percent in 1972, it was still substantially below the 1972 level of 28 percent for white persons of comparable age.

Differences between white and black college enrollment rates reflect, among other things, differences in family income. In 1971, the median income for black families ($6,440) was only 60 percent of the median income for white families ($10,670). Moreover, college enrollment data show that only 15 percent of college-age family members in 1971 were attending college where the family income was below $3,000, as compared with 28 percent where it was between $3,000 and $10,000 and 58 percent where it was $15,000 and over.

In summary, recent developments have brought about the virtual disappearance of illiteracy in the United States, significant increases in educational attainment levels with a high school education becoming the norm, and impressive increases in school enrollment at all levels. In the next 20 years, improvements in the educational achievement of the population will probably be less dramatic. This is true in part because the population above age 65 by 1990 will consist largely of the surviving population above age 45 in 1970, and the contrasts in education among the old and the young at that later date should be much less marked than they are today. Moreover, the contrasts in education among the racial and economic groups in the population should have diminished further by 1990.

National Origin, Race, and Religion

Most of the people in the United States are immigrants or descendants of immigrants from Europe, Africa, or Asia. Even the American Indians, who were already living here when the first European explorers and settlers came to America, were themselves descendants of earlier Asian immigrants. Approximately 7 out of every 8 persons in the United States are descendants of European immigrants, 1 out of every 9 is a descendant of African immigrants, and 1 in 100 is a descendant of American Indians or of immigrants who came during the last century from Asian countries.

This section presents some highlights on the composition of the population of the United States in terms of national origin, race, and religion. These facts throw light on the extent to which the groups differ with respect to their geographic distribution and their social and economic characteristics. Most of the discussion of national origin and race is based on various tables in the **1970 Census of Population**, Vol. I, **U.S. Summary**, or from annual reports

of the U.S. Immigration and Naturalization Service. The discussion of religion is based on data from the Current Population Survey.

National origin—Decennial census data permit stratification of the population into three major components: (1) first-generation Americans—those who were born outside the United States (the foreign born); (2) second-generation Americans—those who were born in the United States but had a parent or parents who were born outside the United States (the native of foreign or mixed parentage); and (3) third and subsequent generation Americans—those born in the United States with both parents also born in the United States (the native of native parentage).

The typical resident in the United States has grandparents who lived in this country. The 1970 census results show that of the 203.2 million persons living in the United States, 9.6 million, or 5 percent, were foreign born and that 24.0 million, or 12 percent, were born in the United States of a parent or parents who were foreign born. Altogether, 33.6 million persons in 1970 were first- or second-generation Americans, that is, either they were foreign born or they were native persons of foreign-born parents. The remaining 169.6 million, or 83 percent, were native persons of native parentage. One-eighth of the "native-native" persons were Negroes, and nearly seven-eighths were white; less than 1 percent were of other races.

Between 1820 and 1965, 10 countries contributed more than a million immigrants to the United States. Eight of these 10 countries were European—Germany, Italy, Ireland, Great Britain, Austria, Hungary, U.S.S.R., and Sweden; the other 2 were Western Hemisphere countries—Canada and Mexico—and most of those who came from these countries had European ancestors. The peak decade of immigration from most of these countries occurred during the latter half of the 19th century and the first three decades of the 20th century. The decade of greatest immigration from Ireland occurred from 1851 to 1860, and the peak decade of immigration from Germany, Great Britain, and Sweden was from 1881 to 1890. The peak decade of immigration from the other countries occurred during the 20th century—Italy, Austria, Hungary, and U.S.S.R. from 1901 to 1910 and Canada and Mexico from 1921 to 1930.

At the beginning of the 20th century the number of foreign-born persons in the United States was larger than in 1970

and constituted a much larger proportion of the total population. The *proportion* foreign-born in the population of the United States reached a peak of 15 percent in 1910. The *number* of foreign-born persons reached a peak of 14.3 million persons in 1930; by that time, however, only 12 percent of the population were of foreign birth. Between 1930 and 1960 the number of foreign-born persons in the United States declined by 4.5 million, but during the 1960's the foreign-born population remained essentially unchanged.

Of the 33.6 million people in the United States in 1970 who were of foreign birth or parentage, the predominant countries of national origin were the following: Italy, 4.2 million, or 13 percent; Germany, 3.6 million, or 11 percent; Canada, 3.0 million, or 9 percent; United Kingdom, 2.5 million, or 7 percent; Poland, 2.4 million, or 7 percent; Mexico, 2.3 million, or 7 percent; U.S.S.R., 1.9 million, or 6 percent; and Ireland, 1.5 million, or 4 percent. In addition, there were 1.7 million, or 5 percent, from all Asian countries combined.

Many significant changes have occurred recently in the source of immigrants to this country. Between 1951-60 and 1961-70, the following changes in the proportions of all immigrants to the United States were recorded: 53 percent had come from Europe in the 1950's but only 34 percent in the 1960's; only 6 percent had come from Asia in the 1950's but 13 percent in the 1960's; 40 percent had come from other American countries in the 1950's but 52 percent in the 1960's; only 0.1 percent had come from Africa in the 1950's but a full 1 percent in the 1960's; and 1 percent had come from other countries in both the 1950's and 1960's.

Closely related to national origin is the mother tongue, that is, the language used in the person's home during the person's childhood. As would be expected, the 1970 census showed that most persons reported English as their mother tongue—160.7 million, or 79 percent, of the total population of 203.2 million. The most common mother tongue other than English was Spanish, reported by 7.8 million. Other languages reported by more than 1 million persons included German, 6.1 million; Italian, 4.1 million; French, 2.6 million; Polish, 2.4 million; and Yiddish, 1.6 million. Usage of a language other than English has depended on such factors as recency of immigration to the United States and strength of identification with the culture that was brought over from the Old World.

The foreign-born population of the United States is widely, but not uniformly, distributed throughout the United States. Although the foreign born comprised 5 percent of the population of the United States in 1970, in New York State the foreign born constituted 12 percent. They also constituted at least 7 percent of the population in the States of California, Connecticut, Florida, Hawaii, Massachusetts, New Jersey, and Rhode Island. The States with the smallest proportion of their population of foreign birth were primarily the Southern States. In 10 States—Alabama, Arkansas, Georgia, Kentucky, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and West Virginia—less than 1 percent of their total population was foreign born. The State with the largest number of foreign-born persons in 1970 was New York with 2.1 million. The only other State with more than a million foreign-born persons was California with 1.8 million.

Recent Current Population Surveys conducted by the Bureau of the Census provide data on the national origin reported for all persons, including not only the first and second, but also subsequent generations. These data show that in 1971 the following numbers of persons in the United States were identified by the respondents as being of European origin or descent: English, Scottish, or Welsh, 31.0 million; German, 25.7 million; Irish, 16.3 million; Spanish, 9.0 million; Italian, 8.7 million; French, 5.2 million; Polish, 4.9 million; and Russian, 2.1 million. Furthermore, about 23 million were Negroes, and about 61 million additional persons were classified as of "Other" origin. The "Other" category included persons of specific origins not listed on the questionnaire (such as Finnish, Danish, Japanese, Chinese, and American Indian) and persons who reported multiple origins.

Moreover, the 1970 census included a question to identify persons who were of Mexican, Puerto Rican, Cuban, or other Spanish origin (or descent). The numbers of persons so reported (figure 3.4) were as follows: All persons of Spanish origin, 9.1 million; Mexican, 4.5 million; Puerto Rican, 1.4 million; Cuban, 0.5 million; and other Spanish origin, 2.6 million.

Tables 3.18 and 3.19 present summary measures of social and economic characteristics for the groups discussed in this section and in the next section. These tables throw light on differences which still are found among the several groups.

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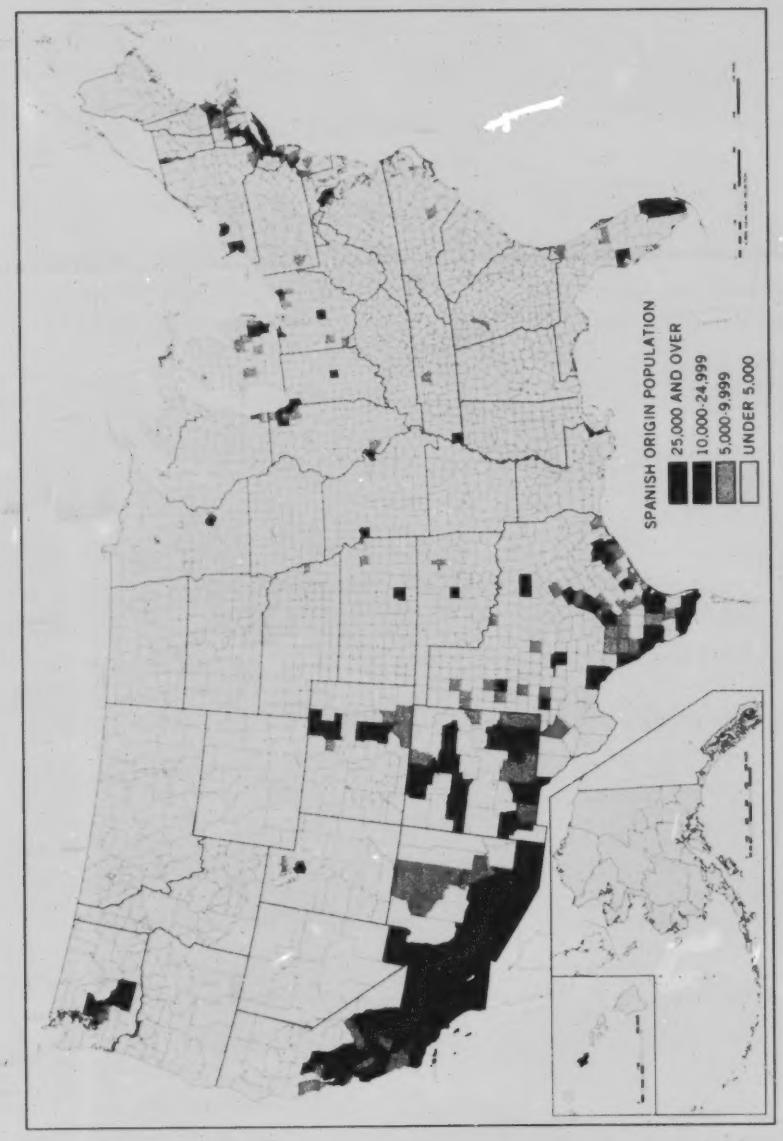
Figure 3.4 Population of Spanish Origin by Counties: United States, 1970



Source: U.S. Bureau of the Census, Geography Division and Population Division, United States Maps, GE-50, No. 52.

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Table 3.18 General Characteristics of Persons of Selected Ethnic and Racial Groups: United States, 1970

Ethnic or racial group	All persons				Persons per household	Cumulative fertility rate[1]
	Number (thous.)	Percent under 16 years old	Percent 65 years and over	Percent urban		
Total population	202,212	30.3	9.9	73.5	3.1	2,749
Native of native parentage	169,635	34.1	7.7	71.0	3.4	2,776
White	146,231	33.4	7.9	69.5	3.4	2,679
Persons of foreign stock:						
Second generation in U.S.	23,956	14.9	16.3	84.4	2.2	2,774
First generation in U.S.	9,619	7.0	32.0	90.7	2.1	2,345
Second generation from--						
United Kingdom	1,779	15.4	23.7	82.4	2.2	2,694
Ireland	1,199	8.8	30.2	90.5	2.0	3,123
Germany	2,789	13.7	36.7	76.3	2.0	2,677
Poland	1,826	6.0	9.0	89.0	2.0	2,601
U.S.S.R.	1,480	3.0	12.4	90.8	1.9	2,397
Italy	3,232	8.9	6.4	91.6	2.1	2,572
Canada	2,222	18.6	15.8	79.2	2.4	2,889
Mexico	1,579	38.0	2.1	86.2	3.8	3,848
First generation from--						
United Kingdom	686	5.4	34.3	87.7	2.1	2,303
Ireland	251	1.5	41.6	94.3	2.0	2,648
Germany	833	3.1	30.1	85.7	2.2	2,066
Poland	548	1.8	18.9	93.5	1.7	2,246
U.S.S.R.	163	.3	63.-	94.1	1.6	2,191
Italy	1,009	3.2	46.7	94.7	1.9	2,411
Canada	812	9.8	24.5	85.1	2.2	2,506
Mexico	760	13.0	14.4	87.4	2.4	3,768
Persons of Spanish origin[2]	9,073	39.9	4.5	87.2	3.9	3,235
Mexican	4,532	43.6	4.2	85.5	4.2	3,792
Puerto Rican	1,429	42.8	2.4	97.7	3.7	3,052
Cuban	545	29.1	6.4	98.5	3.4	1,961
Racial groups:						
White	177,749	29.5	10.3	72.5	3.2	2,673
Negro	22,580	37.8	7.0	81.3	3.5	3,390
American Indian	793	40.7	5.7	44.6	4.0	3,846
Asian:						
Japanese	591	25.4	8.0	89.1	3.4	2,056
Chinese	435	28.4	6.2	96.6	3.4	2,380
Filipino	343	32.7	6.3	85.6	3.5	2,541

[1]Children ever born per 1,000 women ever married, 25 to 44 years old.
[2]Self-identification regardless of number of generations in the United States.

Source: U.S. Bureau of the Census, 1970 Census of Population, various parts of Vol. I and Vol. II.

Race—The 1970 census of population showed that the two principal racial groups in the United States were white persons, who consisted of 177.7 million, or 87 percent, of the total population, and Negroes, who included 22.6 million persons, or 11 percent. Other racial groups with substantial numbers were the American Indians, 793,000, and Southeast Asians (Japanese, 591,000; Chinese, 435,000; and Filipinos, 343,000). In addition, the 1970 census identified four smaller racial groups: 100,000 Hawaiians and

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Table 3.19 Education, Employment, and Income of Selected Ethnic and Racial Groups: United States, 1970

Ethnic or racial group	Median years of school completed		Employment		Income in 1969	
	Persons 25 years old and over	Persons 25-44 years old	Nonworker-worker ratio[1]	Percent unemployed[2]	Median family income	Percent of families below poverty level
Total population	12.1	12.4	1.45	4.4	$9,590	10.7
Native of native parentage	12.1	12.4	1.55	4.6	9,324	11.6
White	12.2	12.5	1.51	4.2	9,761	9.0
Persons of foreign stock:						
Second generation in U.S.	12.1	12.5	1.00	3.5	11,354	6.2
First generation in U.S.	9.1	12.3	1.25	4.4	9,026	11.0
Second generation from--						
United Kingdom	12.3	12.7	1.23	3.8	11,374	5.4
Ireland	12.2	12.7	1.15	3.0	11,776	5.1
Germany	10.3	12.6	1.62	3.2	9,350	8.4
Poland	11.6	12.6	.64	3.0	12,275	3.8
U.S.S.R.	12.6	13.1	.58	2.8	14,280	3.8
Italy	11.8	12.4	.65	3.3	11,855	4.5
Canada	12.2	12.6	1.12	4.1	10,826	6.2
Mexico	9.2	10.4	1.62	6.8	7,844	20.7
First generation from--						
United Kingdom	12.2	12.6	1.33	3.3	10,347	7.4
Ireland	9.2	12.2	1.35	2.9	10,112	7.0
Germany	11.9	12.4	1.17	3.4	10,064	8.6
Poland	8.2	11.8	1.48	4.1	9,631	8.5
U.S.S.R.	8.6	12.3	1.83	4.5	8,571	9.9
Italy	6.9	8.6	1.58	5.0	8,397	10.9
Canada	11.6	12.4	1.18	3.9	10,695	6.7
Mexico	5.8	6.9	1.17	6.8	6,440	25.7
Persons of Spanish origin[3]	9.1	10.5	1.84	6.5	7,348	21.2
Mexican	8.1	9.4	2.04	7.2	6,962	24.4
Puerto Rican	8.7	9.4	2.24	6.8	6,165	26.9
Cuban	10.3	12.0	1.12	5.7	8,529	13.3
Racial groups:						
White	12.1	12.4	1.42	4.1	9,961	8.6
Negro	9.8	11.5	1.76	7.1	6,063	29.9
American Indian	9.8	11.1	2.41	11.2	5,832	33.3
Asian:						
Japanese	12.5	12.8	1.12	2.5	12,515	6.4
Chinese	12.4	13.0	1.23	3.3	10,610	10.3
Filipino	12.2	13.0	1.16	4.8	9,318	11.5

[1]The ratio of persons not in the labor force, including persons under 14 years of age, to persons in the labor force.

[2]Percent unemployed for civilian labor force, 14 years old and over.

[3]Self-identification regardless of number of generations in the United States.

Source: U.S. Bureau of the Census, 1970 Census of Population, various parts of Vol. I and Vol. II.

66,000 Koreans (excluding Alaska), and 28,000 Eskimos and 6,000 Aleuts in Alaska.

The various racial groups that comprised the population of the United States in 1970 were not evenly distributed among the four major regions of the country nor were they evenly distributed among the 50 States. Negroes were more likely to live in the

Southern States of the Nation than in other regions, as 12.0 million, or 53 percent of the 22.6 million Negroes in the United States in 1970, lived in the South. By contrast, 31 percent of the total population resided in the South. Black persons comprised 19 percent of the South's population, as compared with only 11 percent of the entire Nation's population. There has been a substantial migration of Negroes from the South to the North and West in recent decades. This migration has resulted in a more general redistribution of the black population throughout the States. For example, the proportion of all Negroes in the Nation living in the South declined from 68 percent in 1950, to 63 percent in 1960, and to 53 percent in 1970.

Although the majority of the Negroes in the United States lived in the South in 1970, the 3 States with the largest numbers of Negroes were not in the South: New York State, 2.2 million; Illinois, 1.4 million; and California, 1.4 million. There were 9 States in the United States that had over 1 million Negroes in 1970. These States, ranked in order of their black population, were New York, Illinois, California, Texas, Georgia, North Carolina, Louisiana, Florida, and Pennsylvania (figure 3.5).

Negroes in the United States in 1970 were more likely to be city dwellers than were whites; thus, 18.4 million, or 81 percent, of the Nation's 22.6 million Negroes lived in urban areas as compared with 72 percent of the white population. Negroes were especially likely to be concentrated in the central cities of metropolitan areas. In 1970, 13.1 million Negroes, or 58 percent of the black population, lived in central cities as compared with 28 percent of the white population.

Between 1950 and 1970 the number of American Indians enumerated in the United States more than doubled, rising from 357,000 to 793,000. This rapid growth reflects the especially high fertility rate and the declining mortality rate among Indians. Other factors related to the sharp increase may have been the change from recording race by observation to recording by self-enumeration, and recent Federal laws pertaining to increased benefits available to Indians.

Indians are more likely to be living in the West than in any of the other three regions of the Nation; in 1970, nearly half, or 391,000, were living in the West. Three States had more than 90,000 Indians—Oklahoma, Arizona, and California. The majority

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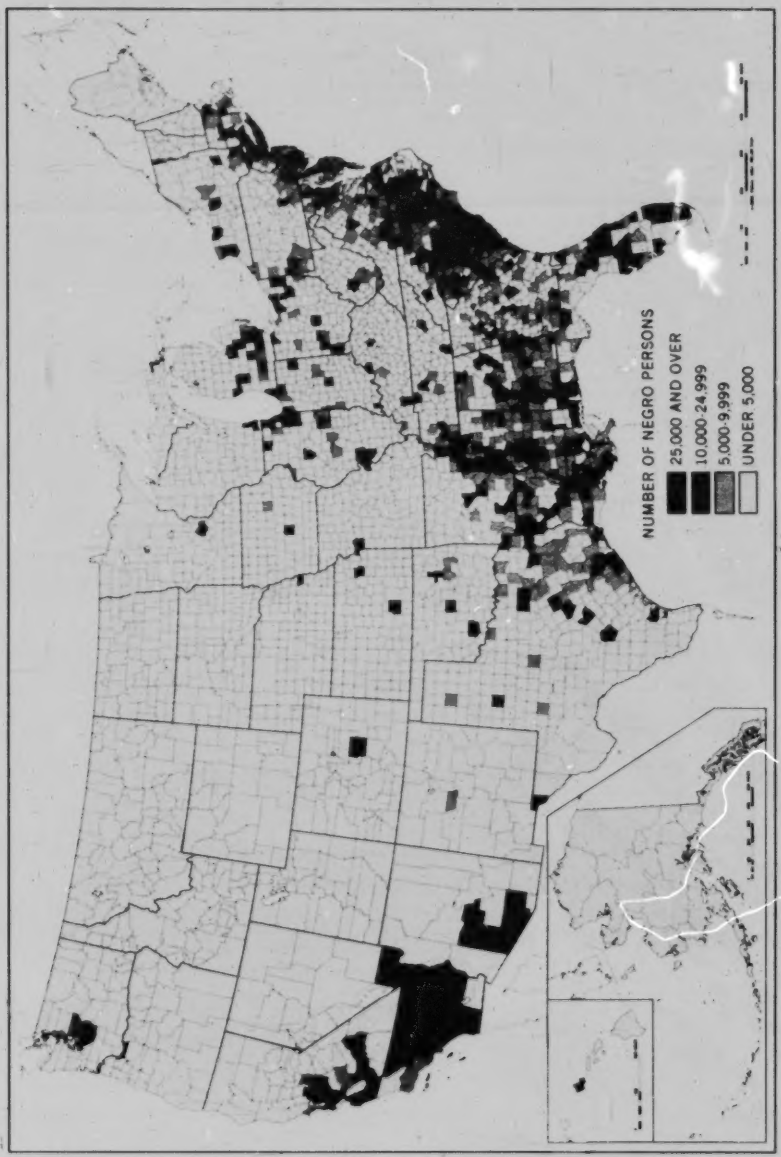
Figure 3.5 Negro Population by Counties: United States, 1970



Source: U.S. Bureau of the Census, 1970 Census of Population, Supplementary Reports, Series PC(S1)-1, "Distribution of the Negro Population, by County."

of Indians—nearly 437,000, or 55 percent—were living in rural areas in 1970. However, a significant number of Indians had moved to the larger urban areas; 308,000, or 39 percent, lived in standard metropolitan statistical areas.

At the time of the census of 1900, only 86,000 Japanese lived in the United States. In 1970, however, 591,000 Japanese resided in the Nation. Most of the Japanese were living in Western States—479,000, or 81 percent—with particular concentrations in Hawaii (217,000) and California (213,000). The only other States in the Nation with more than 10,000 Japanese were New York, with 20,000; Washington, with 20,000; and Illinois, with 17,000. Almost all of the Japanese in the United States reside in cities, as 524,000, or 89 percent, lived in urban areas in 1970.

The number of Chinese in the United States totaled 435,000 in 1970. The Chinese, like the Japanese, are more likely to live in the West than in any of the other three regions in the United States; in 1970, 246,000, or 56 percent, lived in the West. However, a considerable number of Chinese resided in the Northeast region—116,000, or 27 percent. California had more Chinese in 1970 than did any other State—170,000. Other States with more than 10,000 Chinese in 1970 were New York, with 81,000; Hawaii, with 52,000; Illinois, with 14,000; and Massachusetts, with 14,000. Nearly all—419,000, or 96 percent—of the 435,000 Chinese in the United States in 1970 lived in urban areas.

Relatively few Filipinos lived in the United States in the early part of the 1900's; the 1910 census showed only about 3,000 Filipino residents. However, by 1970, 343,000 Filipinos were living in the United States. The Filipinos, like the Japanese, the Chinese, and the Indians, live primarily in the West, as 252,000, or 73 percent, of all Filipinos in the United States in 1970 lived in that region. Also, like the Chinese and the Japanese, a majority of the Filipinos were living in California or Hawaii. California had more Filipinos than any other State—139,000. Other States with more than 10,000 Filipinos were Hawaii, with 94,000; New York, with 14,000; and Illinois, with 13,000. The Filipinos, like the other major racial groups in the United States, except the Indians, were primarily city dwellers, as 293,000, or 85 percent, of the Filipinos lived in urban areas, and only 50,000, or 15 percent, lived in rural areas.

A special tabulation of the 1970 census data showed how respondents reported the race of children living with both parents

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(including stepparents and adopted parents) when the parents and their children were not of the same race. The results showed that about 1 percent of the children had a different race from that of one or both of the parents with whom they lived; of these children, nearly three-fifths were classified according to the race of their father and a little more than one-fourth according to the race of their mother; of the remaining one-seventh of the children, about four out of every five had a father and a mother of the same race who had evidently adopted a child or children of a different race, and the others may have been stepchildren from an earlier racially mixed marriage.

Table 3.20 Selected Characteristics of Persons by Religion: United States, 1957

Religion	Civilian population			14 years and over, percent urban	Population per household	Cumulative fertility rate[1]
	Number thous.	Percent under 18 years	Percent 65 years and over			
Total	168,122	34.9	8.7	63.9	3.4	2,218
Protestant	111,533	35.1	9.2	56.6	3.4	2,220
White	95,330	34.0	9.8	55.2	3.3	(NA)
Other	16,203	41.8	5.7	66.1	3.9	(NA)
Roman Catholic	44,040	36.3	6.9	78.8	3.7	2,282
Jewish	5,013	27.8	10.0	96.1	3.0	1,749
No religion	4,272	30.0	10.3	54.2		
Other religion	1,929	24.9	12.5	77.4	2.9	2,069
Not reported	1,335			68.2		

Religion	Persons 14 years old and over			25 years old and over: median years of school completed	Income in 1956	
	Percent other than white	Males per 100 females	Percent unemployed		Median family income	Percent of families below $3,000
Total	10.0	93	4.3	10.6	$4,825	25
Protestant	13.3	89	4.2	10.7	4,586	28
White	(X)	89	3.6	11.3	4,852	24
Other	(X)	86	7.5	8.0	2,651	57
Roman Catholic	2.5	93	4.4	10.4	5,265	19
Jewish	.2	93	3.0	12.3	6,494	14
No religion	13.0	281	6.5	8.6	(NA)	(NA)
Other religion	11.7	101		8.9	(NA)	(NA)
Not reported	10.6	99		(NA)	(NA)	(NA)

X Not applicable. NA Not available.
[1]Children ever born per 1,000 women ever married 15 to 44 years old.

Source: U.S. Bureau of the Census, Current Population Reports, "Religion Reported by the Civilian Population of the United States: March 1957," Series P-20, No. 79; Paul C. Glick, 1960, "Intermarriage and Fertility Patterns Among Persons in Major Religious Groups," Eugenics Quarterly, Vol. 7, No. 1, pp. 31-38 (civilian population copyright by the Society for the Study of Social Biology, New York, 1960; reprinted by permission); and Census Bureau records.

Religion—The only survey made by the Bureau of the Census in which a sample of persons 14 years old and over in the United States were asked "What is your religion?" was conducted in 1957. On the basis of this survey, estimates were made of the distribution of the civilian population of all ages according to religious preference. The results showed that 66 percent regarded themselves as Protestant, 26 percent as Roman Catholic, 3 percent as Jewish, 1 percent as having some other religion, 3 percent as having no religion, and 1 percent not reporting. The survey showed that among those 14 years old and over, 23.5 million regarded themselves as Baptist, 16.7 million as Methodist, 8.4 million as Lutheran, and 6.7 million as Presbyterian. The remaining 23.7 million Protestants 14 years old and over were distributed among many smaller denominations.

A summary of social and economic characteristics of persons in each of the major religious groups is presented in table 3.20 as of 17 years ago in March 1957.

Chapter IV. POPULATION DISTRIBUTION AND INTERNAL MIGRATION

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Population Density and Regional Distribution

U.S. and world population density—In the world population summary published by the United Nations for mid-1971, the population of the United States was estimated as 207 million, a little less than 6 percent of the world total of 3,706 million. The area of the United States, 9.4 million square kilometers (3.6 million square miles), comprised almost 7 percent of the land area of the world, so that its share of the world's population and land area were roughly similar. Its population density of 22 persons per square kilometer (57 per square mile) was somewhat below the worldwide mean of 27 persons.

The United States ranks fourth among countries in both area and population. Both China and the Soviet Union have larger areas and larger populations; the gross density of 82 per square kilometer for China is almost four times as great as that for the United States, while the Soviet Union's density, 11 per square kilometer, is only half as great. India also has a larger population than the United

States, but a smaller area and a much higher density, 168 per square kilometer; Canada has a slightly larger area, but only about one-tenth the population and density. Among these very large countries, then, the United States comes close to having a density that is about average for the planet as a whole.

If the comparison is made on the basis of arable land rather than total area, the United States (1.8 million square kilometers) has over 12 percent of the world total. It ranks second only to the Soviet Union (2.2 million squre kilometers) and exceeds the total arable area of Europe excluding the Soviet Union.

Within the hemisphere of the Americas, the magnitude of the United States is relatively more evident. Occupying about 22 percent of the combined area of the two continents, it has 39 percent of their population, so that its density of 22 is much greater than the overall average of 12. By way of comparison, the density of Europe excluding the Soviet Union is 94 per square kilometer, and of Asia excluding the Soviet Union, 76.

The major U.S. regions—Because the United States is a very large country in both area and population, it is not surprising that there are important regional differences in the distribution and characteristics of its population. As background for the remainder of this chapter, this section will present a brief description of the major regions, stressing the salient geographical and historical circumstances that have had a continuing influence on their demographic characteristics.

Figure 4.1 shows 1970 population density for small subdivisions of States (counties). On this map the most noticeable break in density occurs along a north-south line approximately in the middle of the country, close to the 100th meridian of west longitude. This line represents a significant geographic boundary. To the east of it, rainfall is sufficient almost everywhere to permit agriculture. In this eastern half of the country, there are scarcely any areas with less than 50 persons per square mile, the exceptions occurring in a few northern, upland, or swampy areas.

West of the 100th meridian line, rainfall is typically less than 20 inches per year, except in some areas close to the Pacific Coast. In the interior west, agriculture is possible only with irrigation, and settlement is of an oasis character, concentrated in limited areas to

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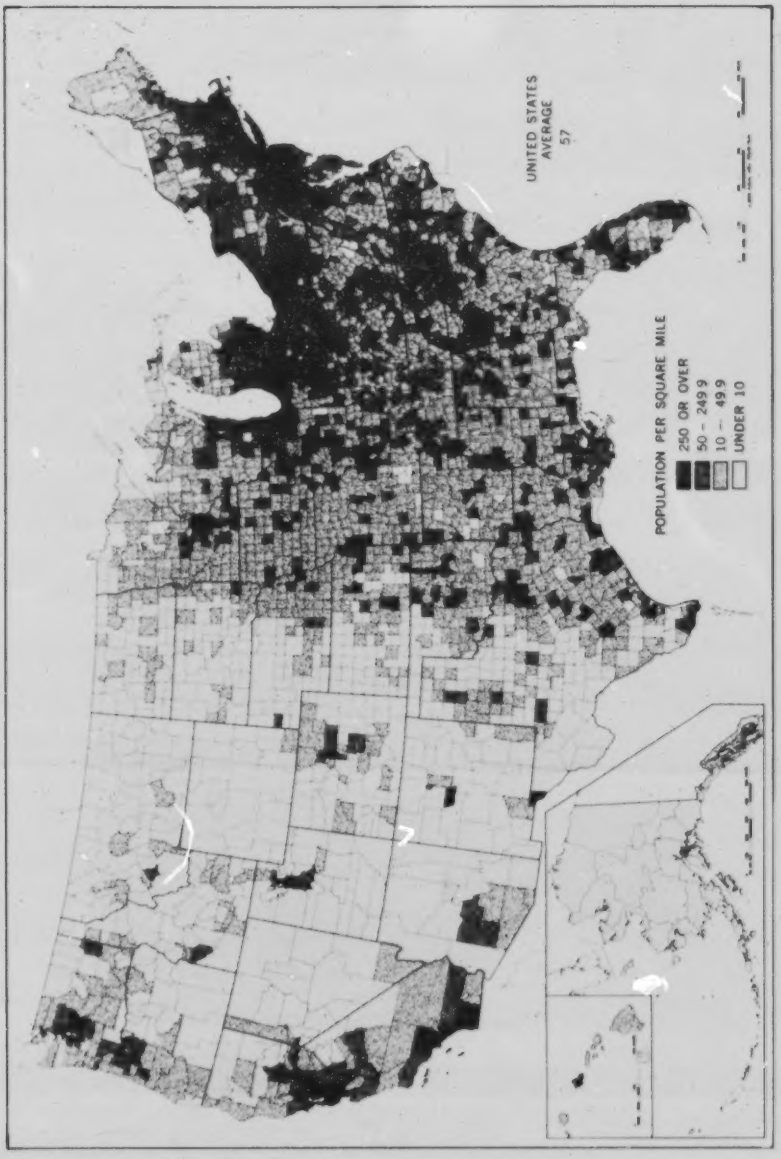
Figure 4.1 Population Density by Counties: United States, 1970



Source: U.S. Bureau of the Census, **1970 Census of Population**, Vol. I, **U.S. Summary**, figure 27.

which it has been possible to supply water. Irrigated areas have been expanded somewhat in the 20th century, but much of the western half of the country remains very sparsely populated, with cattle or sheep ranching, mining, tourist, and resort activity accounting largely for what settlement exists. Most of this western area has less than 10 persons per square mile, and there are considerable desert tracts in which the density drops below 2 per square mile.

A physiographic map of the country does not show a close parallel to a population map because density and distribution have been less affected by uplands than by rainfall. Thus, in the East the Appalachian Mountain system includes many densely settled industrial areas in its northern portion and some densely settled rural areas throughout its length. In the West, although the Rocky Mountains and the Sierra Nevada range are generally sparsely settled, they are no more so than many arid areas which adjoin them.

Within this broad division into a humid East and a West that is arid except for its Pacific coastal fringe, the 50 States have been grouped into 6 large regions for the purpose of this discussion of population distribution. (The additional two regions, as compared with the Census Bureau's four conventional regions, come from a subdivision of the West into three parts, to distinguish areas of greatly differing population density; also, the boundary line between the Northeast and the South has been modified.) Within each of the six regions, the density and character of settlement are roughly similar and, in addition, the regions have considerable historic and cultural individuality and a broad degree of local recognition. This is true although the exact boundaries of the regions are open to much discussion by both specialists and laymen; in fact, each region shades gradually into its neighbors with few instances of a sharp break. It is convenient to discuss the regions in terms of entire States, although in several instances (notably Texas) different portions of one State belong to different regions from a geographic and historic point of view.

The *Northeast*, as defined here, comprises 11 States and the District of Columbia, including the 6 States commonly referred to as New England, together with the Middle Atlantic States (New York, New Jersey, and Pennsylvania) and Delaware, Maryland, and the District of Columbia just to the south of them. Prominent in this region is the chain of major cities along the northeastern

seaboard, extending from Boston through New York and Philadelphia to Washington. The region also includes the northern part of the Appalachian upland area as far west as Buffalo and Pittsburgh. This region has a total of 54.3 million people (1970 census) on a land area of 175,200 square miles. In extent and population it is roughly comparable to France (211,200 square miles and 51 million population). The high density of the region, 310 persons per square mile, is over five times the national average of 57 persons per square mile. The Potomac River, at the southern boundary of the region, corresponds approximately to the historic line of division between the North and the South, a boundary of much cultural and demographic significance down to the present time.

Historically, the settlement pattern of this region assumed its present form earlier than that of any of the other regions. Permanent European settlement of the Northeast began on the seaboard shortly after 1600, with several of the earliest settlements corresponding to the largest seaboard cities of today. The frontier of settlement had reached the western boundary of the Northeast by about 1800, and settlement of new agricultural land within the region had practically halted by 1830. After colonial times it was the Northeast to which the majority of immigrants from Europe first came; most of those who remained in the region settled in cities and industrial towns rather than in rural areas. In contrast with the South, this region had few Negroes until the 20th century. Today, it is dominated by large commercial and industrial cities, and agriculture is important in only a few areas. The region accounts for 29 percent of the Nation's manufacturing (value added) but only 8 percent of its farm output (total value of farm products sold).

To the west of the Northeast region extends the North Central region, commonly known as the Middle West, or *Midwest*, which comprises 12 States adjacent to the Great Lakes and in the upper Mississippi River basin. This region has about the same population as the Northeast, 56.6 million, but its area of 751,800 square miles is over four times as great and its density is only 75 per square mile. The southern boundary of the Midwest follows the Ohio River, like the Potomac a line of historic significance that is still perceptible in demographic data. Within the region, population density shades off gradually from east to west; the West North Central States contain only a few large cities, while the East North Central, or Great

Lakes, States include Chicago, Detroit, and many other large industrial centers. In addition to large-scale manufacturing, the Midwest contains a major portion of the country's most productive farmland; it accounts for 35 percent of the Nation's manufacturing and 44 percent of its farm output.

The four westernmost States of the region are divided by the 20-inch rainfall line, so that each has most of its population concentrated in its eastern part and a large sparsely settled western portion. Omitting these four Great Plains States from the region would deduct 307,000 square miles, 40 percent of the total, but only about 5 million people, less than 10 percent of the total. The Great Plains, then, are a border zone, with cultural and economic affinities to the Midwest but with a settlement pattern similar to that of the arid West, and vestiges of a frontier tradition not found in the States just to the east.

Most of the early settlers of the Midwest came from the Northeast and Middle Atlantic States, although some areas along the Ohio and Mississippi Rivers underwent settlement from the South. In addition to settlers of British stock from the eastern seaboard, the Midwest's population soon included immigrants from the continent of Europe, some of whom settled in farming areas (especially Scandinavians and Germans). The rural settlement of the Midwest had scarcely begun in 1800 and was largely completed by 1900. Like the Northeast, the Midwest had practically no Negroes before 1900, except in a few cities along the southern margin of the region. In both the Northeast and the Midwest, there are still almost no blacks in rural areas and not many outside the larger metropolitan areas. Together, the Northeast and the Midwest are sometimes denoted the North, as contrasted to the South or the West.

South of the Potomac and Ohio Rivers and extending west from the Atlantic seaboard to Texas lie the 14 States of the *South*, probably the most distinctive of the major regions. Although Delaware, Maryland, and the District of Columbia have some historical and cultural affinities with the South, in this discussion they have been included with the Northeast on the basis of their contemporary economic orientation. The total population of the South as defined here is 57.6 million, not greatly different from that of the first two regions; the area is 862,000 square miles, somewhat larger than that of the Midwest. The overall density is 67

per square mile, but at the western margin of the region, the Great Plains sections of Oklahoma and Texas lie beyond the arid margin and have an average population density of less than 15 per square mile.

The chronology of European settlement of the South paralleled that of the North, beginning on the eastern seaboard in the early 1600's and continuing until most arable lands had been settled by the late 19th century. Some significant contrasts may be noted, however. First, the European settlement of the South did not have the ethnic diversity of the North. There were a few very early Spanish settlements in Florida and along the Gulf of Mexico coast, and an important settlement of French and associated groups in Louisiana beginning in 1714. But 19th-century white settlement in the South was predominantly of British Protestants, although there were Mexican, German, and other settlements in Texas and a number of local exceptions in other areas.

The most distinctive aspect of the South's demographic development was its large Negro population. Present in small numbers from the earliest days of British settlement, blacks comprised over 25 percent of the South's population by 1700 and over 40 percent by 1750. By the time immigrants from countries other than the British Isles were coming in large numbers to the Northeast, the existence of this supply of cheap Negro labor in the South was a major factor in the region's failure to attract any substantial number of new European immigrants.

Another contrast with the North is the fact that the South's early Atlantic and Gulf seaboard settlements rarely grew into large cities (New Orleans representing the most conspicuous exception). The Civil War of 1861-65 and its "Reconstruction" aftermath did much to arrest the development and particularly the urbanization of the region; in fact, the South developed few major cities until after the First World War. The period since 1917 has been one of rapid urban growth within the South, but has also witnessed large-scale outmigration of Southern blacks to industrial cities in the other regions. During this same period, Florida and some other parts of the South have experienced considerable inmigration of whites from the North, many of them older persons drawn by the mild climate. In recent decades, the proportion of the population of Mexican origin has increased in some cities and rural portions of Texas, and already existing Cuban communities in Florida cities received many new immigrants beginning in 1960-61.

Originally, the South's economy was almost synonymous with cotton and tobacco production. Today, its agriculture is considerably less significant, but farming remains important in a number of local areas, and the region accounts for 27 percent of the Nation's total farm output as well as 23 percent of its total manufacturing.

Historically, there has not been the same degree of contrast between the southeastern seaboard States and the South Central States of the Mississippi Basin as between the Northeast and the Midwest. Within the region, southern Louisiana has a distinctiveness associated with its French settlement, and Florida shows many signs that most of its settlement has occurred since 1900. In the western part of the region, Texas and Oklahoma form a transition zone, in which characteristics of the South, the Great Plains, and the West can all be distinguished.

To the west of the 20-inch rainfall line are the eight *Mountain States*, corresponding approximately to the thinly settled portion of the arid West. This region includes a variety of physiographic areas besides mountains, with plateaus, deserts, and irrigated valleys and foothill belts; population is highly concentrated in a few areas and very thinly spread throughout the remainder. The total area of 856,000 square miles contains 8.3 million people, with an average density of less than 10 per square mile. Although the area around Santa Fe, New Mexico, was colonized by the Spanish before 1600, European settlement of most of this region occurred during the 19th century; expansion of irrigation followed by metropolitan growth and resort development have brought substantial population increases in Arizona, Nevada, and some other areas down to the present time. In parts of Arizona and New Mexico there are large concentrations of American Indians, of various tribes and traditions. In 1970, the State with the largest proportion of Indians (7 percent) was New Mexico. However, the State with the largest number of Indians in 1970 (98,000) was Oklahoma, a portion of which was designated until 1907 as an Indian territory for various tribes.

One of the more distinctive small geographic areas of the United States is the State of Utah, focusing on the irrigated lowland near Great Salt Lake, which has been populated from the period of settlement (after 1847) to the present day largely by members of the Church of Jesus Christ of Latter-day Saints, or Mormon Church.

This close-knit community has retained considerable demographic distinctiveness, including a high birth rate and a high level of education.

Constituting the fifth region are the three *Pacific States*, and the distant island State of Hawaii. Together these States have a total of 26.2 million people, roughly half that of any of the first three regions discussed above, and an area of 325,500 square miles, for a density of 81 per square mile, roughly comparable to that of the South or the Midwest. Settlement of the Pacific Coast is rather discontinuous, however, with heavy concentrations in a few lowland or irrigated areas separated by thinly settled upland or desert areas. Within the region, there are many contrasts between Washington and Oregon, known as the Pacific Northwest, and California or Hawaii. Settlement in the two northwestern States is concentrated in a lowland with a cool rainy climate, extending along Puget Sound and into the Willamette Valley of Oregon; the low coastal mountain ranges, the high Cascade ranges to the east, and the arid plateau areas east of the Cascades are all thinly settled. Extensive European settlement of this region did not take place until the late 19th century and was closely linked with the Northeast. There are general affinities of climate and economy with the adjacent Canadian Province of British Columbia.

Much of California, in contrast to the Northwest, enjoys a Mediterranean-type climate that is generally too dry for farming without extensive irrigation. Sparsely settled by the Indians, Spanish, and Mexicans prior to its acquisition by the United States in 1848, most of California's people are migrants or descendents of migrants from the eastern regions of the country. Some large groups of Orientals established themselves in the 19th century, mainly in the larger cities, and in recent decades there has been substantial immigration of Mexicans to both cities and agricultural areas. Like the Northeast and the Midwest, the Pacific States now have a substantial black population in urban areas, developed largely since 1940.

Far off to the southwest, Hawaii's population (769,000) is notable demographically for the varied Oriental and European ethnic background of its population. Almost half (47 percent) of the residents of Hawaii in 1970 were reported as Japanese, Chinese, or Filipinos; and native Hawaiians had declined to only 9 percent of the State's population. However, many residents of Hawaii have more than one Oriental strain.

The irrigated portions of the Mountain and Pacific States are highly productive farming areas, the two regions accounting for 20 percent of the Nation's agricultural output, compared with 13 percent of its total manufacturing.

The last of the six regions is *Alaska*, purchased by the United States from the Russian Empire in 1867 and made a State in 1959. Its 566,400 square miles comprise 16 percent of the total land area of the United States, but its population has only recently surpassed 300,000. Most inhabitants are recent migrants from the conterminous 48 States, although important Eskimo, Aleut, and Alaskan Indian minorities remain in the more remote areas. Almost half of Alaska's population lives within 50 miles of its largest city, Anchorage, and much of its area lacks any settled or permanent population.

Center of population—As has been briefly outlined, since the period of European discovery, the historic course of settlement of the country has been westward from the original foci of colonization on the eastern seaboard. The westward movement has been graphically portrayed after successive decennial censuses by the shift in the center of population, defined as the point at which an imaginary flat, weightless, and rigid map of the United States would balance if weights of identical value were placed on it so that each weight represented the location of one person. At the time of the first census in 1790, almost two centuries after the first settlements, most of the population still lived close to the Atlantic coastline; Louisiana was not yet part of the United States; and the center of population was located in Chesapeake Bay east of Baltimore, Maryland. Ten years later, at the opening of the 19th century, the center had moved west to a point quite close to Washington, which had just been established as the new capital city. In each succeeding decade, the center moved westward, crossing the crest of the Appalachians in the 1830's and the Ohio River in the 1850's. Western settlement accelerated after the Civil War, but from 1890 to 1940 it was much slower, as new rural settlement in the West diminished and was counterbalanced by large-scale European immigration to the cities of the East. After World War II the westward movement again accelerated through the rapid growth of the Pacific Coast States, and by 1970 the center of population had almost reached the Mississippi River in the vicinity of St. Louis. In contrast to the very slow movement in the 183 years from 1607 to 1790, in the 180 years between 1790 and 1970 the center had

moved about 700 miles west. In that period it had moved only 60 miles south, however, emphasizing the relative evenness with which settlement proceeded westward from both the northern and southern portions of the Atlantic seaboard.

The measure represented by the center of population is affected by relative distance as well as by size of population, so that California and Hawaii exert a proportionally greater effect simply because they are far away from the center. Close to half the people in the country live in the 17 States on or near the Eastern seaboard (including Vermont, West Virginia, and the District of Columbia), together with Tennessee, Kentucky, and Ohio immediately west of the Appalachians. In crude terms these 20 States and the District of Columbia represent the area in which significant settlement had taken place before the close of the 18th century. (Louisiana and some areas even farther west had important settlements at that time but were not yet part of the United States.)

Compared with practically 100 percent of the Nation's population in 1800, the share of these 20 States and the District of Columbia had been reduced to about 50 percent in 1900, with the other 50 percent living farther west. Between 1900 and 1970, however, their share of the national total fell only slightly. With most new agricultural settlement accomplished, the 20th century has seen increasing concentration of the population on the East and West coasts, but a relative thinning out in many areas of the interior. In terms of the distribution of the population within the Nation as a whole, the westward movement has not been as pronounced in the 20th century as the shift of the center of population might suggest.

Urban-Rural, Farm-Nonfarm, and Metropolitan-Nonmetropolitan Residence

The distinction between incorporated municipalities and other areas has little demographic validity in the United States because of the wide variation in the size of municipalities and the fact that extensive suburban areas have no separate municipal status. Three distinct types of classification have been used in recent censuses to indicate the distribution of the population according to "residence" or type of community. These are urban-rural, metropolitan-nonmetropolitan, and farm-nonfarm. The contrasts between these measures can be exemplified by comparing census data for each classification. In 1970 the population was 73.5 percent urban and

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26.5 percent rural. The metropolitan proportion was 69 percent, with metropolitan territory including much of the urban territory along with some rural territory. The farm population accounted for only 4 percent of the total; part of the farm population, however, resided within areas designated as metropolitan.

Urban and rural territory—The makeup of urban and rural territory is summarized in table 4.1. Urbanized areas represent a census concept, defined to correspond approximately to the agglomeration or built-up area in and around each large city. Each urbanized area includes a "central city" or cities, usually of 50,000 or more population, and an "urban fringe"—any adjacent territory with a population density of 1,000 or more per square mile, together with some less dense territory if devoted to specified urban uses. The outer boundary of the area is defined in terms of small census enumeration districts, not in terms of administrative units, and is frequently quite irregular. A new urbanized-area boundary is defined around each city immediately after each decennial census and is reflected in publications of that census. Every city of 50,000 or more is either the central city of an urbanized area or is included within the urbanized area of some larger city; several urbanized areas have two or more central cities.

Table 4.1 **Population by Selected Residence Categories: United States, 1970**

Area	Population, 1970 (thousands)	Percent of U.S. total
Total population	203,212	100.0
Urban population	149,325	73.5
Urbanized areas	118,447	58.3
Central cities of urbanized areas	63,922	31.5
Urban fringe:		
Places of 2,500 or more	38,612	19.0
Other urbanized territory	15,912	7.8
Places of 2,500 or more outside urbanized areas	30,878	15.2
Rural population	[1]53,887	26.5
Nonfarm	45,591	22.4
Farm	8,287	4.1

[1]Nonfarm and farm populations based on a 20-percent sample and hence do not add exactly to rural pouplation total.

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, tables 4 and 68.

Barely half the total population of urbanized areas live in their central cities. Of the rest, 38.6 million live in suburban incorporated or unincorporated communities of 2,500 or more, and 15.9 million in additional densely populated territory not recognized legally or by the census as constituting a community.

Also included in the urban population, besides these urbanized areas of larger cities, are individual places of 2,500 or more population, most of which are small cities and country towns. Together they have a population of 30.9 million, 15 percent of the national total.

In recent census publications the "urban" concept has been extended back to every census beginning with that of 1790, when the population in places of 2,500 or more was 5 percent of the total. It first surpassed 50 percent in 1920. Prior to 1950 the definition was limited essentially to incorporated places of 2,500 or more and did not include most of the "other urbanized territory." The urbanized areas were established for the 1950 census in recognition of the fact that urban development around major cities was outdistancing the ability of the existing definition to keep up with urban expansion. The changes in definition added about 6.7 million population to the urban category as of 1950, and 12.2 million as of 1960. Precise data based on the new definition are not available before 1950, but a very large portion of the "other urbanized territory" acquired its character after 1920, and it is likely that if the new definition could be applied to the censuses of 1900 or 1910 it would not add a great deal to the urban population compared with the old definition. The rural population in 1910 (old definition) was 50.2 million, compared with 53.9 million in 1970; thus, essentially all the gain in the national population since that time (totaling 111.0 million) has accrued to the urban population.

Although the urban population now comprises almost three-quarters of the total, the actual land area of urban territory is quite small, totaling a mere 54,102 square miles, or 1.5 percent of the national total. This was a 34 percent increase from 1960 (40,238 square miles), when 1.1 percent of the total land area was classified as urban.

Within the Nation, the highest proportions of population classified as urban naturally occur in States with very large cities.

These include the two States with the largest total populations, California (91 percent urban) and New York (86 percent). High proportions also occur in certain small States (New Jersey, 89 percent, and Rhode Island, 87 percent) and the District of Columbia (100 percent). However, some States with large areas also have very high urban proportions, notably Nevada (81) and Texas (80), because their rural portions are so thinly settled. Some States with large cities also have a large rural population, notably Pennsylvania (71 percent urban), which contains many small mining and industrial communities as well as farming areas. Pennsylvania has the largest rural population of any State (3.4 million), followed by North Carolina (2.8 million), a State with a sizable population but few large cities and containing an important tobacco-growing region with a rather densely settled farming population.

The selection of 2,500 as the critical size for classifying a locality as urban can be traced to the late 19th century. In recent years, some have suggested that 2,500 is too small to reflect true urban character. There have also been suggestions that the distinction between concentrated (urban) communities and scattered (rural) areas has lost much of its one-time significance. Perhaps the chief value of the urban/rural distinction, besides the continuity of data for 180 years, is the fact that it continues to reflect quite well the distinction between high- and low-density settlement. This is clearly brought out by the fact that the overall density of urban territory is 178 times as great as that of rural territory.

Farm and nonfarm residence—The United States continues to be one of the largest producers of agricultural commodities in the world, but the population living on farms has been falling, both relatively and absolutely, for many years. To be classified as a farm resident, a person must live in rural territory on a property that actually produces at least a small volume of agricultural goods for sale. Residents of rural properties that are not being operated as farms are counted by the census as rural-nonfarm population. (No urban residents are classified by the census as farm population.)

In 1970 only 8.3 million persons, or 4 percent of the total population, lived on farms. Moreover, the farm population comprised only 15 percent of the total rural population. The increase in mechanization in farming activities and the widespread use of automobiles by nearly all segments of the population have

combined to produce a situation where most of the open-country residents no longer live on farms. Although a portion of these rural-nonfarm residents are in effect supported by the agricultural or recreational activities that take place in their vicinity, in most regions a larger share are employed in nearby cities and towns but have chosen to live in the open country. A significant contributing factor is that the cost of housing in such surroundings is often cheaper than in nearby urban centers.

The farm population continues to comprise a significant share of the rural population in certain regions, and exceeds 30 percent in a block of six States in the western Midwest (Minnesota, Iowa, North Dakota, South Dakota, Nebraska, and Kansas). Between 20 and 30 percent of the rural population live on farms in three additional groups of States adjacent to the first (Missouri, Wisconsin, Illinois, Indiana, and Kentucky to the east, Montana, Wyoming, and Idaho to the west, and Oklahoma to the south). Elsewhere, the farm proportion of the rural population is especially low (below 10 percent) in the Northeast, the Southeast, and the desert portions of the West. The largest farm population (512,000) is found in Iowa, which is often regarded as the prototype agrarian State.

Between 1960 and 1970 the farm population as defined by the census fell by 5.2 million, or 38 percent. This precipitous decline was shared by every State, with no State having less than a 20 percent decline. The highest relative losses occurred in the most rural parts of the South (South Carolina, 68 percent; Mississippi, 61 percent). Much smaller losses occurred in the most productive farm regions of the Midwest (Iowa, 23 percent; South Dakota, 21 percent). There is some evidence that the fall in farm population has become less steep since 1970; it may be that the supply of available outmigrants from the farm population has been nearly exhausted after a long period of heavy outflow.

Metropolitan and nonmetropolitan area—As noted above, 58 percent of the total population live within urbanized areas, the agglomerations of cities over 50,000. Because they are defined almost entirely on a density basis, the urbanized areas somewhat understate the actual extent of individual metropolitan communities. Especially around the urbanized areas of the larger cities, there is a penumbra of fringe settlement with a density which is quite high but less than 1,000 persons per square mile. This zone

comprises small groups of houses and scattered dwellings interspersed with open land still in use for farming or simply unused. In contrast to the urbanized area proper, where most of the land is devoted to urban uses, in this "urban-rural fringe" the bulk of the land is still rural in use, but a heavy majority of the population is urban or suburban in economic support and style of life.

This zone of rural-urban transition is difficult to measure precisely, particularly since it is an area of very rapid change, the growing edge of the expanding urbanized area. But its existence means that the urbanized area is a somewhat underbounded definition of the actual metropolitan area.

Moreover, many metropolitan complexes now effectively include neighboring small cities that were once independent of them, and which may still be separated by semirural territory that does not qualify for inclusion in an urbanized area.

Recognition of the need for a more inclusive definition of "metropolitan area" has also been prompted by the inconvenience of the urbanized areas as units for analysis because their limits are not administrative boundaries, so that other statistical data cannot be gathered for them. Even intercensal comparisons are difficult because the urbanized area boundaries naturally expand from census to census.

To meet the need for a somewhat larger "metropolitan area" around each important city, and to have a statistical unit whose boundaries could be used to gather a range of other data, the standard metropolitan statistical area concept has been developed (figure 4.2). The SMSA's are established for essentially the same list of cities of 50,000 or more as the urbanized areas. However, their boundaries are defined in terms of entire counties. The county was selected as the building block because in most States it is the smallest territorial unit for which statistical data are regularly gathered. (In the six New England States, subcounty units known as "towns" are well recognized locally, and many types of statistical data are available for them; consequently in these States the SMSA building blocks are "towns" rather than counties.)

In addition to the county containing the central city itself, other counties are included in the SMSA if they demonstrate a specified degree of economic and social integration with the central

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Figure 4.2 **Standard Metropolitan Statistical Areas: United States, 1970**

Source: U.S. Bureau of the Census, **1970 Census of Population, Vol. I, U.S. Summary**, figure 4.

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county. The chief statistical evidence that has been used in implementing these criteria relates to the proportion of workers who commute daily to the central county. Outlying counties must also possess a specified degree of "metropolitan character" defined in terms of population density, recent population growth, and percentage of the population that is urban. Many SMSA's have been defined around two or even three central cities, but the criteria for determining whether neighboring cities should be recognized as having separate or combined SMSA's are general rather than precise.

Table 4.2 compares the population and area of these two measures of metropolitan extent. Of the total 1970 SMSA population of 139.4 million, 116.9 million (84 percent) lived in urbanized areas. This included practically all of the population of urbanized areas, but because of variations resulting from the use of county building blocks and some other minor differences between the two definitions, there were 1.6 million persons in urbanized areas but outside SMSA's.

Table 4.2 Population, Land Area, and Density of Standard Metropolitan Statistical Areas and Urbanized Areas: United States, 1970

Area	Population (thousands)	Land area (square miles)	Density (population per square mile)
United States	203 212	3,536,855	57
Inside SMSA's	139 419	387,616	360
Urbanized areas	116,882	34,391	3,399
Other	22,537	353,225	64
Urban	6,125	(NA)	(NA)
Rural	16,412	(NA)	(NA)
Outside SMSA's	63,793	3,149,239	20
Urbanized areas	1,565	690	2,268
Other	62,228	3,148,549	20
Urban	24,753	(NA)	(NA)
Rural	37,475	(NA)	(NA)
Urbanized areas	118,447	35,081	3,376
Outside urbanized areas	84,765	3,501,774	24

NA Not available.

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, table 17 and appendix A, table E; and Census Bureau records.

The urbanized areas within SMSA's occupied only 34,385 square miles, or 9 percent of the total SMSA territory. The urbanized areas, therefore, had a population density over 50 times as great as the remainders of SMSA's, emphasizing the striking contrast between the two definitions as to the amount of area covered.

Of the remainder of the SMSA population, 6.1 million lived in urban territory (other places of 2,500 or more within SMSA's but outside urbanized areas), and 16.4 million were classified as rural. Most of the 6.1 million urban population and much of the rural component may accurately be termed "suburban" in character. However, some SMSA's include a great deal of territory, again because of adventitious aspects related to the use of counties as building blocks; as a result, some extensive farming areas and some small cities not closely related to the main city may be included.

In the portion of the country outside the SMSA's, the population totals 63.8 million, of whom 26.3 million are urban, including the 1.6 million overflow of urbanized areas. The remaining 37.5 million are rural.

Almost 12 percent of the SMSA population is classed as rural. However, this accounts for nearly 30 percent of the total rural population of the country. The total SMSA area of 387,616 square miles represents 11 percent of the total national area.

Since the 1970 census, the boundaries of many SMSA's have been redefined on the basis of 1970 data on commuting to work, and some additional areas have been included on the list. By the end of 1973, the total SMSA population (according to 1970 census data) was 148 million (73 percent of the total), residing on an area of 489,831 square miles (14 percent of the total).

One unexpected result of the use of SMSA's for the portrayal of metropolitan data has been a tendency to exaggerate the impression of widespread areal growth of American metropolitan centers. Despite emphasis on the fact that some SMSA counties unavoidably include extensive rural areas, there is a tendency to assume that most of the SMSA territory shown on figure 4.2 is urbanizing if not already urbanized. Strong evidence to counteract such an inference is the low average density of the portions of SMSA's outside urbanized areas--64 per square mile, not much

greater than the national average of 57. If the population and area of the remaining urban territory (places of 2,500 or more in SMSA's but outside urbanized areas) were to be subtracted, the density of the rural SMSA population would drop below 50 per square mile.

Prior to the establishment of the SMSA's in 1949, a succession of decennial censuses had presented data for metropolitan areas defined in terms of minor civil divisions below the county level; in other words, the building block was a much smaller unit, although the basic criteria for inclusion in the metropolitan area were much the same. The result was an area intermediate in extent between the present SMSA and the urbanized area, omitting the thinly settled territory that occurs in the outer parts of some large SMSA counties, but including the rural-urban fringe zone just beyond the edge of the urbanized area proper. No official metropolitan delimitations have been made on this basis since 1949.

Some general comparisons may be made between the definitions used for types of settlement in the United States and those used for census purposes by other countries. First, cities and other incorporated municipalities in the United States are generally more likely to be underbounded (understating the actual extent of the physical urban area) than cities of Latin America, Asia, the Soviet Union, or Southern Europe. In this respect they are generally comparable to the cities of the United Kingdom, France, Belgium, and West Germany, which are also frequently underbounded. U.S. cities in the South, however, show a significantly smaller degree of the underbounding than those of other regions. There are, of course, many individual exceptions to these generalizations.

The urban definition used by the United States is somewhat more inclusive than that of most countries in extending to places as small as 2,500 population. However, less than 10 percent of total urban residents live in places of less than 10,000 population outside urbanized areas; if the lower limit used for urban population were 10,000 instead of 2,500, the urban proportion would still be 67 percent. This reflects the concentration of the urban population in large agglomerations which would be classified as urban under practically any rule. Compared with definitions of metropolitan-type areas used in other countries, the urbanized areas are a relatively narrow definition, roughly comparable to the *agglomérations urbaines* of France and similar areas in Australia (Urban

Areas), Belgium, Norway, and India. They are not quite as narrowly defined as the Densely Inhabited Districts of Japan, which use a density minimum of 4,000 per square kilometer, and in 1970 included 55.5 million population (54 percent of the total) on only 1.7 percent of the area of a much smaller and more densely settled country (Japan, Bureau of Statistics, 1972, p. 15).

The metropolitan areas defined for census purposes in Canada, Switzerland, Mexico, Sweden, France, and Finland, and the conurbations presented in the United Kingdom census are all somewhat more broadly defined than the U.S. urbanized areas. They are roughly analogous to the areas with minor civil divisions as building blocks that were published in the U.S. censuses prior to 1949. Somewhat similar definitions have been published unofficially for the Soviet Union (Davidovich, 1962) and for West Germany (Boustedt, 1960).

Finally, the U.S. SMSA's are considerably broader in definition and extent than the metropolitan areas defined by most other countries. Some countries with a relatively low population density have defined similar areas, including Australia (Statistical Divisions), Brazil, and Argentina (Gran Buenos Aires).

Regional and metropolitan population change—In the two decades from 1950 to 1970, the total increase in the U.S. population was 51.9 million. This followed an increase of 19.2 million in the 1940-50 decade, so that in the 30 years after 1940 the total increase amounted to 71 million, about 54 percent of the 1940 population and more than the combined total prewar population of Italy and Spain.

This large population increase was not shared equally by all regions of the country or all types of community, of course. There were also significant differences in the degree to which population growth resulted from internal migration. For the Nation as a whole, most of the 20-year increase was due to natural increase, and only about 5.7 million, or 11 percent, was due to net immigration from abroad. However, in some areas the contribution of migration was much greater, while other areas had a net loss from migration and grew in population only because of a continuing excess of births over deaths. Figure 4.3 shows net migration by county for the 1960-70 decade.

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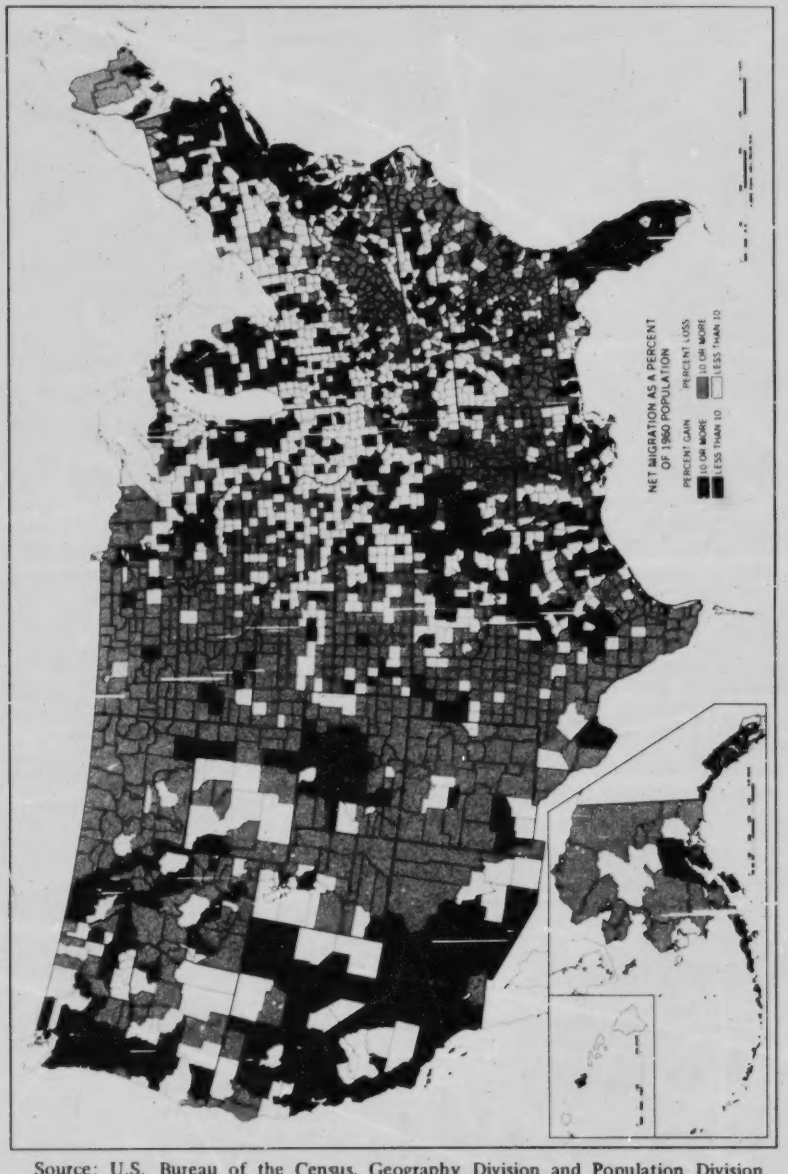
Figure 4.3 Net Migration by Counties: United States, 1960 to 1970



Source: U.S. Bureau of the Census, Geography Division and Population Division, United States Maps, GE-50, No. 44.

This section will give a brief outline of the patterns of population growth by region and metropolitan status, with attention to the contribution made by net migration to total growth. As in the preceding discussion, data for the Northeast include Delaware, Maryland, and the District of Columbia, and data for the South exclude these three areas, although the rapidly growing Virginia suburbs of Washington, D.C., with a population of nearly 1 million in 1970, are included in the South. The Mountain States, Pacific States, and Alaska are treated as a single region, the West, in the following discussion.

During the 20-year period, all four major regions gained substantially in total population. The Northeast increased by 11.3 million (24 percent), the North Central region (Midwest) by 12.1 million (27 percent), and the South by 13.8 million (34 percent). However, the largest rate of growth occurred in the West, which rose from 20.2 million population in 1950 to 34.8 million in 1970, an increase of 14.6 million population, or 72 percent.

In both the Northeast and North Central regions, most of the change during the period was due to natural increase. The Northeast had net inmigration of 1.25 million, compared to natural increase of 10.1 million, while the North Central region had net outmigration of 0.9 million compared to natural increase of 13 million. Taken together, these two regions experienced an increase of 23.4 million population with net inmigration of only 0.4 million. However, this nearly balanced movement was the resultant of several contrasting major migration flows, including significant immigration from abroad, a large portion of which found its destination in these two regions; net inmigration from various portions of the South; and outmigration to the West and to certain portions of the South, particularly Florida.

Taken as a whole, the South had a net migration loss of 1.4 million during the 20-year period, which reduced somewhat the increase that would have resulted from an excess of 15.2 million births over deaths. In the West, natural increase totaled 7.9 million and net inmigration 6.7 million for the two decades, so that net migration contributed 46 percent of the region's total growth during the period. Thus, during this period the West has continued to experience large inmigration from the other regions, while the relative effect of interregional migration on the total populations of the other regions has been much less significant.

Competing in impact with these broad regional patterns is the pattern of metropolitan growth as compared with that of nonmetropolitan areas. On the national level, metropolitan areas have had substantial net inmigration from nonmetropolitan territory, besides absorbing the majority of the net immigration from abroad. Although precise comparisons are difficult to make because of changing definitions of metropolitan areas, the net inmigration to metropolitan territory for the 20 years was about 13.5 million. Assuming that 90 percent of the 5.7 million national net immigration went to metropolitan areas, this would indicate a net migratory gain of over 8 million from nonmetropolitan territory. This metropolitan gain, averaging more than 400,000 per year over the 20-year period, is greater in volume than that experienced by any single major region, even the West.

The rate of migration to metropolitan areas has shown a declining trend in recent years. After a net inmigration of about 7.2 million in the 1940's and 8.1 million in the 1950's, metropolitan areas gained only about 5.3 million through net migration in the 1960's. In the 1940's, net migration accounted for over 44 percent of total metropolitan increase, but in the 1950's this dropped to about 35 percent, and in the 1960's to 26 percent. Moreover, about three-fifths of the net migratory gain for the 1960's represented net immigration from outside the country, so that only about one-tenth of the total metropolitan population increase in the 1960's was due to net migration from nonmetropolitan areas within the country. This pattern, a considerable contrast to that of earlier decades, in part reflects the high proportion of the total population now living in metropolitan areas, which in turn has resulted in an increasing share of metropolitan inmigration originating in other metropolitan areas. At the same time, as the population on farms has fallen, the Nation has been receiving immigrants from other countries to augment its labor supply, including substantial migratory inflows from Puerto Rico and Mexico, as well as from Europe and other areas.

There is some evidence of a further slackening since 1970 in metropolitan growth, largely on the part of the half-dozen largest metropolitan areas. These may now be experiencing net migratory losses, while many medium-sized and smaller metropolitan areas continue to gain population through net inmigration.

In broad terms, the pattern of net migratory gain to metropolitan areas and loss to nonmetropolitan areas has held true

for each major region throughout the 20-year period. For the 1950-70 period as a whole, the metropolitan areas of all regions gained through net migration. However, the migratory gain has been rather modest in the Northeast for some decades, and by the 1960's it was also negligible in the North Central region, where metropolitan areas had experienced considerable net inmigration in the two previous decades. In the South, net migration added substantially to what was already a higher than average rate of natural increase for the metropolitan areas. In the West, net migration has equaled or exceeded natural increase as a source of growth to metropolitan areas throughout this period.

The four major regions are so large and diverse that only the most general statements can be made about overall patterns of growth and migration for their nonmetropolitan territory. For the 20-year period, the South's nonmetropolitan areas showed a substantial net outmigration, and it is this region that has consistently shown the widest gap between the growth rates of its metropolitan areas and its nonmetropolitan territory (38 percent and 3 percent, respectively, in the 1950's; and 22 percent and 6 percent in the 1960's). The gap becomes even wider if Florida is subtracted. The nonmetropolitan portions of the South have supplied many hundreds of thousands of new urban dwellers to the cities of the South itself, but at least until recently these cities have not absorbed the entire surplus of the region's population, and there has been substantial net outmigration to the North and West. This outmigration from the South has included large numbers of both whites and blacks.

In the 1960's, Florida was the only State in the South (still excluding Delaware, Maryland, and the District of Columbia) that had net inmigration to nonmetropolitan areas. Here the inflow, 407,000, accounted for 71 percent of the nonmetropolitan population increase, and affected virtually all the counties of peninsular Florida.

Excluding Florida, the South's nonmetropolitan areas experienced a net outmigration of 1.9 million, equivalent to 70 percent of their natural increase for the decade. A few areas did experience a migratory inflow, however. Most were upland areas, including parts of the Shenandoah Valley of Virginia; western North Carolina; scattered counties in Kentucky, Tennessee, and north Georgia; and a considerable area in the Ozark-Ouachita upland of Arkansas,

southern Missouri, and eastern Oklahoma. All of these areas have undergone some resort and retirement development, as well as increasing industrialization in small cities. Many coastal areas of the South (again excepting Florida) have not shown net inmigration, in contrast to both the Northeast and the Pacific coasts.

Areas of net outmigration in the South fall into two broad categories. In the first group are most of the Southeastern seaboard from Richmond through Atlanta; northern Alabama, Tennessee, and Kentucky (except the eastern part); and most of Oklahoma and Texas. In these regions most of the metropolitan areas, particularly the larger ones, have undergone substantial net inmigration, which has approximately balanced the migratory outflow from adjacent nonmetropolitan areas.

In the second group is a broad region in the Middle and Deep South, including most of Louisiana and Mississippi, southern Alabama and Georgia, the Mississippi River lowland counties of eastern Arkansas and western Tennessee, and a few adjacent areas. A similar but smaller area is in the coastal plain portions of the Carolinas and southern Virginia. These areas include most of the traditional cotton-growing areas of the South and most of the areas with the highest proportions of blacks. Their heavy nonmetropolitan outmigration was much greater than the inmigration to their cities, so that as a whole these portions of the South had migratory losses.

There were two similar areas of heavy outflow in Texas. In south Texas there was a pattern of heavy outmigration from rural areas along the Rio Grande, which have large Mexican populations. These areas underwent agricultural reverses in the late 1960's. In west Texas the losses were part of a general pattern of outmigration from rural portions of the Great Plains, coupled with diminishing growth in some petroleum-producing counties.

Finally, the heaviest rates of outmigration in the entire country were experienced in the Middle Appalachian coal-mining areas of West Virginia and eastern Kentucky, a region of high natural increase, declining employment in mining, and limited alternative sources of employment. This was one of the few sizable regions of the country to undergo an actual population loss during the decade. A number of counties in the area had net migratory losses in 1960-70 amounting to over 30 percent of their 1960

population; many had also experienced heavy outflows in the preceding decade.

The North Central region, like the South, has also shown a fairly sharp contrast between the growth rates of its metropolitan and nonmetropolitan components (24 percent and 7 percent gains, respectively, in the 1950's; 13 percent and 3.5 percent gains in the 1960's). However, the bulk of the nonmetropolitan outmigration from the region has originated from its western portion, the seven States west of the Mississippi. Like the South, this group of States, with relatively few large cities, has had a larger supply of potential outmigrants than metropolitan jobs, and so has had a perennial outmigration (8 percent in the 1960's) to cities farther east, to the West, and to other regions. The migratory net outflows have characterized most of the Great Plains counties, reaching their heaviest levels in the western Dakotas, where most counties had net outmigration exceeding 20 percent of their 1960 population. The Dakotas, Nebraska, Kansas, and adjacent Iowa had actual losses in nonmetropolitan population in the 1960's; the only other States in which this occurred were West Virginia and Mississippi.

East of the Mississippi, the Midwest includes many large metropolitan areas, and the nonmetropolitan population represents a correspondingly smaller share of the total; here the nonmetropolitan areas have had a more modest outflow or in some areas a small net migratory inflow, and the rates of metropolitan and nonmetropolitan growth are much closer together (12.6 percent and 7.2 percent, respectively, in the 1960's). Migratory inflows to nonmetropolitan areas have been associated with some resort and retirement areas, especially in Michigan and Wisconsin. This region also has many small cities with universities which underwent rapid expansion during the 1960's as the persons born during the "baby boom" of the late 1940's and early 1950's reached college age; few of these college communities can be expected to repeat such increases in the 1970's.

In the other two regions, the Northeast and the West, the contrast between metropolitan and nonmetropolitan growth has shown less of a parallel to that of the Nation as a whole. In the West, the nonmetropolitan component experienced net inmigration in the 1940's and 1950's which shifted to a small outflow in the 1960's. Much of the nonmetropolitan inmigration has occurred along the Pacific Coast, and most of the intermontane Great Basin

has experienced steady outmigration. Some nonmetropolitan counties have shown a net inflow in mountainous portions of Colorado, Wyoming, and Montana and in some portions of Arizona and Nevada. All of these areas have amenities that are advantageous for retirement and resort development.

In the Pacific Coast States, inmigration has occurred in most counties except for the intensively agricultural San Joaquin Valley of California and some lumber-producing areas straddling the California-Oregon border. In the Pacific Northwest the heaviest inmigration has occurred in the Puget Sound-Willamette lowland rather than along the Pacific Coast proper, a rainy area that has not attracted many retirees. In California, however, most of the coastal counties have shown large inflows. Most of Alaska had migratory outflows in the 1960's, except for the local metropolis, Anchorage. The same was true of the outer islands of Hawaii. Even for Hawaii as a whole, including metropolitan Honolulu, net inmigration was relatively modest and accounted for less than 10 percent of total population growth.

In the Northeast, the growth rates for the metropolitan and nonmetropolitan components have been much closer together throughout the 20-year period than in other regions; in the 1960's the nonmetropolitan portion showed some net inmigration and a more rapid growth rate than the metropolitan portion. The nonmetropolitan component comprises less than 20 percent of the region's total population; it includes some outer suburban territory beyond the official metropolitan boundaries, and also various resort and retirement areas, especially near the Atlantic seaboard and in Vermont and New Hampshire. At the same time, steady outmigration has characterized most of the inland sections of the region. The Appalachian portions of the Northeast, including the western two-thirds of Pennsylvania and adjacent portions of New York, had net outmigration during the decade that was shared by both its metropolitan centers and nonmetropolitan areas; a similar pattern extended into eastern Ohio, including Cleveland and its environs. This area is characterized by coal-mining and industrial development of long standing, with iron and steel and related heavy manufacturing of prime importance: like certain older industrial areas of contemporaneous development in Europe, it has been at a competive disadvantage relative to newer centers of manufacturing.

Two general points about the 1960's may be noted in conclusion to this regional survey. The only areas of the country in

which more than half the total population increase was due to net inmigration were Florida, the coastal portions of the Pacific Northwest, and California. Collectively, these three areas had a net inflow of more than 4 million persons in the 1960's, whereas the remainder of the country had a net migration loss of nearly 1 million. However, the three areas had only about 32 million people in 1970, or 15 percent of the total population.

In most of the other regions of the country, metropolitan areas have received relatively more inmigrants than neighboring nonmetropolitan areas, or (in a few instances) have lost relatively fewer outmigrants. However, there is no longer any general national pattern of rapid inflow to most metropolitan areas combined with rapid outflow from most nonmetropolitan areas. Instead, in many regions a moderate to high rate of metropolitan inflow is associated with a low rate of nonmetropolitan outflow or an approximate balance, while in other regions, both metropolitan and nonmetropolitan areas show a balance or a net outflow. The chief areas exhibiting the "traditional" pattern of high rates of metropolitan inflow associated with high rates of nonmetropolitan outflow are located in the South. The areas of heaviest nonmetropolitan outflow—the Deep South, the Great Plains, and the Middle Appalachian coalfields—do not show high rates of inmigration to their own metropolitan centers, but are still exporting population to the other parts of the country.

Migration Differentials

The importance of geographic mobility lies not only in the extent to which it brings about redistribution of the population but also in the extent to which it is differentially experienced. In industrial societies almost everyone moves at least once during the course of a lifetime, but at any given moment the persons engaging in the different forms of geographical mobility are almost never a representative sample of the total population. The degree to which movers (or migrants) differ from nonmovers (or nonmigrants) varies according to the type of move.

Because of the selectivity associated with different types of geographical movement, migration may alter the distribution of characteristics more than the distribution of persons. A great deal of geographical mobility typically brings about relatively little net redistribution, for many moves in and out of an area often balance

out, resulting in a small amount of net movement in relation to total movement.

Recent evidence from censuses and surveys in several countries has added greatly to knowledge of migration differentials. Several demographers (Heer, 1968, p. 71; Goldscheider, 1971, pp. 301-03; and Matras, 1973, pp. 374-77) have asserted that there are few firmly established generalizations about migration differentials and that less is known about migration differentials than about fertility differentials. Recent evidence, however, permits greater insight into the level of mobility of the populations of different countries and allows more precise identification of migration differentials.

International comparisons—The problem of comparing migration in different countries has been due to the fact that each country tends to define migration in terms of its own administrative units (typically local government areas) whose differences in size and shape do not permit international comparisons. One way of circumventing this problem is to consider all moves, that is, rates of residential mobility which give the probability of changing usual residence (house or apartment) during a specified period of time.

According to this measure, the geographical mobility of the American population is quite high by international standards. One study (Long, 1970) based on censuses and nationwide surveys found that for 1-year periods (near 1960), nearly 20 percent of the U.S. population moved, compared to about 11 percent in England and Wales and 8 percent in Japan. Over a 5-year period, 50 percent of the U.S. population moved; this was about the same rate as that prevailing in Canada but higher than the 37 percent of the population who moved in England and Wales during a 5-year period.

The length of the mobility interval makes an important difference in comparing nations in terms of geographical mobility. A long interval allows a greater proportion of the population to move at least once and fails to record repeat moves. For this reason the differences between the United States and the other countries discussed previously are greater when residential mobility is measured over a 1-year interval than when measured over a 5-year interval.

These general differences in residential mobility prevail among successive age groups and cumulate over an individual's lifetime. In

the same way that life expectancy is calculated, one may estimate the number of years with moves a person would expect if subject to a given set of age-specific rates of residential mobility and of mortality. A person subject to U.S. age-specific residential mobility rates (measured over a 1-year period) and to U.S. mortality rates would expect between 13 and 14 years with moves during the course of a lifetime (Long, 1970). A person moving according to the age-specific rates of residential mobility in England and Wales would expect just over 8 years with moves in a lifetime, and a person moving according to the Japanese age-specific rates would in a lifetime expect just under 5 years with residence changes. Thus, an average American's "quota" of lifetime moving is about 1 2/3 times what it would be if he moved according to the residential mobility rates for England and Wales and about 2 3/4 times what it would be if he moved according to the Japanese residential mobility rates.

These differences are substantial enough to imply somewhat different styles of life based simply on expectation of moving. It is interesting to note that according to the American age-specific rates of residential mobility, a person at age 35 could expect about the same number of moves during his remaining lifetime as he would at age 25 according to the age-specific rates for England and Wales and at age 1 according to the Japanese rates (Long, 1970). In other words, an American at approximately the mid-point of his life, age 35, would anticipate about as many additional moves as he would make in his entire lifetime if he moved according to the Japanese age-specific rates.

Some of the differences among countries in residential mobility arise from differences in the proportion of their populations engaged in agriculture. Since farmers have low migration rates, the residential mobility rate for only the male nonfarm labor force is higher than the rate for Japan as a whole. Japan in 1960 had a higher proportion of its workforce in agriculture than the United States, Canada, or England and Wales. Residential mobility rates for the nonfarm male labor force are about 20 percent in 1 year for the United States (50 percent over a 5-year period in the United States and Canada), about 12 percent in England and Wales, and about 13 percent in Japan. Thus, the residential mobility of Japan and England and Wales is about the same when only the male nonfarm labor force is considered.

Trends in volume of internal migration—Annual data on the residential mobility of the U.S. population extend back to 1948.

During most of the time since then, the percent of the U.S. population residentially mobile (including movers from abroad) has been around 20 percent, with very little variation from year to year. In recent years, however, the rate has been around 18 to 19 percent. Between March 1970 and March 1971, about 11.4 percent of the U.S. population 1 year old and over moved within the same county; another 6.5 percent moved between counties (including 3.4 percent moving between States); another 0.8 percent moved from abroad, yielding an overall residential mobility rate of 18.7 percent (Census, **Current Population Reports**, 1970-71). There are about 3,100 counties in the United States.

Similar percentages apply to each of the years between 1948 and 1971. Thus; since World War II there has been no substantial change in the rate of residential mobility (or migration) in the United States. Data from the 1940, 1960, and 1970 censuses, however, show that there was a significant increase in rates of interstate migration between the late 1930's and the late 1950's.

Each of these three censuses had questions on residence 5 years earlier, but the only comparable tabulations are for interstate migration of men 25 to 34 years old. For this subgroup of the population, rates of interstate migration nearly doubled—from 9 percent for the 1935-40 interval to 17 percent for the 1955-60 interval. The percent of men at this age moving between States remained at 17 for the 1965-70 interval.

In the post-war period, therefore, rates of short- and long-distance moving in the United States have been high but stable. Rates of interstate migration during this period, however, have been considerably higher than in the years immediately prior to World War II.

There is to some extent a built-in tendency for long-distance migration rates to increase. As will be demonstrated shortly, the probability of undertaking long-distance migration is directly related to educational level. In the United States the educational level of the population has been rising, and a higher proportion of the population at the upper educational levels tends to push up the interstate migration rate. One study (Long, 1973a) calculated that of the nearly doubling in interstate migration rates among men 25 to 34 years old between 1935-40 and 1955-60, about 35 percent could be attributed to a shift upward in the educational level of this

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age group and the remaining 65 percent could be attributed to increases in the migration rates at each educational level.

Migration differentials by age—Probably the single most important determinant of who moves is age. As can be seen in table 4.3, rates of moving within counties and between counties are greatest for the age group 20 to 24. At this age, about 25 percent of the people move within counties during a year and another 17 percent move between counties. Tabulations by single years of age (figure 4.4) reveal that just under 50 percent of the people in the United States move at age 22 (including movers from abroad who are excluded from table 4.3).

Table 4.3 Percent of Population Moving Within and Between Counties in 1 Year, by Age: United States, Average for 1966 to 1971

Age	Population (thousands)	Percent moving within counties	Percent moving between counties
Total, 1 year old and over.....	195,703	11.8	6.7
1-4 years.....	15,084	18.0	10.2
5-9 years.....	20,677	12.1	7.0
10-14 years.....	20,177	9.4	5.2
15-19 years.....	17,992	11.7	6.0
20-24 years.....	14,621	25.0	16.7
25-29 years.....	12,593	20.6	12.5
30-34 years.....	11,104	13.9	8.5
35-39 years.....	11,315	10.6	6.3
40-44 years.....	12,134	8.7	4.4
45-49 years.....	11,964	7.6	3.6
50-54 years.....	10,904	6.7	3.0
55-59 years.....	9,722	6.4	2.7
60-64 years.....	8,208	5.6	2.8
65 years and over.....	19,208	5.8	2.5

Source: U.S. Bureau of the Census, unpublished data averaged from successive March Current Population Surveys, 1966-71. Survey questions referred to mobility status during preceding 12 months.

Rates of geographic mobility are high at the "young-adult" ages because these years represent a stage in the life cycle when children are leaving their parental home to get married, to enter the labor force, or to go away to school. For some persons these events entail only short-distance moving, while for others they involve long-distance migration. But for virtually everyone these events are

associated with at least one change of residence. Other moves may also take place as persons complete their schooling, as they begin to have children of their own, and as they change jobs in the early years of their careers.

Rates of geographic mobility are also high among young children, reflecting the high mobility of their young parents. In the United States about 18 percent of children 1 to 4 years old move within counties in 1 year and another 10 percent move between counties. Children in the age group 10 to 14 have relatively low rates of moving, but immediately thereafter the rates rise very rapidly, reaching the maximum at ages 20 to 24. After the peak is reached, rates of moving decline rather steadily with advancing age.

It is clear from table 4.3 that short-distance moving (within counties) is a more important component of residential mobility than long-distance moving (between counties). For each age group the within-county rate of moving is considerably higher than the between-county rate.

Among all persons 1 year old and over, the between-county rate of moving is only 57 percent of the rate of within-county moving. Long-distance moving as a component of total residential mobility is greatest at the ages when residential mobility is greatest. Among persons 20 to 24 years old, between-county moving is 67 percent of the within-county rates. These percentages illustrate that long-distance moving is more highly concentrated in a relatively short age span than short-distance moving. Interstate migration is even more highly concentrated in the age group 20 to 24 than the intercounty migration shown in table 4.3.

Migration differentials by education—Migration differentials are most pronounced at the ages where migration is greatest. As migration rates decrease with increasing age, fewer and fewer characteristics discriminate between who moves and who does not. Table 4.4 shows rates of moving within and between counties according to level of education for men and women 25 to 34 years old—an age when education is ordinarily completed and persons have had time to become established in a career.

Level of education can be seen to have relatively little influence on who moves within counties (the predominant form of residential mobility) but has an important effect in determining who makes the longer moves between counties. Among men 25 to

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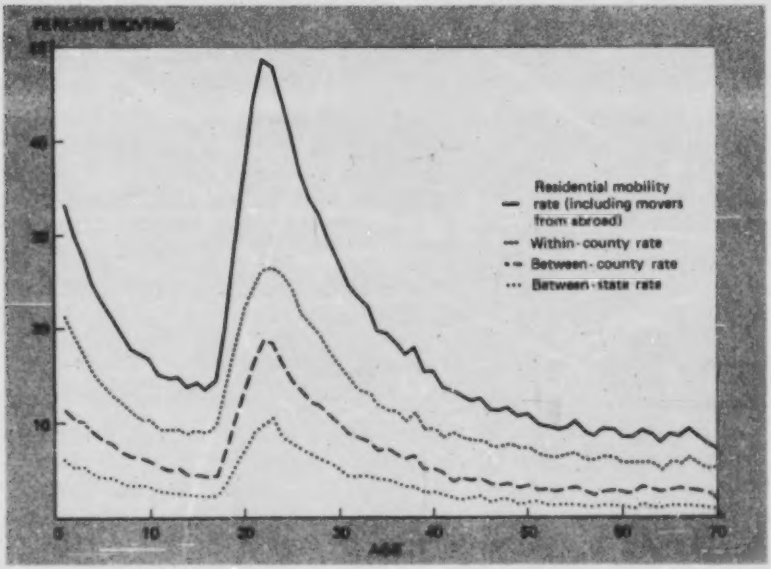
Figure 4.4 **Single-Year-of-Age Probabilities of Making a Specified Type of Move During a 1-Year Period: United States, Average for 1966 to 1971**



Source: Larry H. Long, 1973, "New Estimates of Migration Expectancy in the United States," **Journal of the American Statistical Association,** Vol. 68, No. 341, pp. 37-43. Copyright by the American Statistical Association (Washington, D.C., 1973). Reprinted by permission.

34 years old, 9 to 11 percent of those with no education beyond the high school level can be expected to move between counties in a year's time. With increasing level of education, the percent moving between counties rises rapidly, reaching 19 percent among men with 5 or more years of college. For this age group, therefore, men at the highest educational level are nearly twice as likely to undertake migration (movement between counties) as men at the lowest educational levels. When moves of even longer distance are considered (rates of interstate migration are not shown), the differences in migration rates between the poorly educated and the highly educated are even greater.

Although rates of within-county moving are generally higher for each age group than rates of between-county moving, rates of between-county moving are nearly equal to rates of within-county moving among the highly educated. For the age group 25 to 34, men with a college education are about as likely to move between counties as within counties, while men with a high school education

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or less are only about one-half as likely to move between counties as within counties. The result is that, over a lifetime, college-educated persons devote a large part of their total residential mobility to long-distance moves, whereas persons with a high school education or less devote only a small part of their lifetime residential mobility to long-distance moves.

The effects of educational level on migration propensities are less among later age groups, but throughout life the college educated are noticeably more likely to undertake migration than persons with less education. As shown in table 4.4, women in the age group 25 to 34 have lower migration rates at each educational level than men. The lower migration rates for women generally reflect the fact that women tend to marry men slightly older and then assume the mobility of their husband. Thus, women at a given age tend to have the mobility rates of men a few years older.

Table 4.4 **Percent Moving Within and Between Counties in 1 Year, for Persons 25 to 34 Years Old, by Sex and Years of School Completed: United States, Average for 1966 to 1971**

Years of school completed and sex	Population (thousands)	Percent moving within counties	Percent moving between counties
Men, 25-34 years old	11,565	19.3	11.4
Elementary: 0-7 years	685	22.5	9.3
Elementary: 8 years	653	22.3	10.8
High school: 1-3 years	1,843	21.8	9.6
High school: 4 years	4,543	17.8	9.4
College: 1-3 years	1,657	19.2	11.8
College: 4 years	1,238	16.8	16.8
College: 5 years or more	946	20.3	19.0
Women, 25-34 years old	12,132	15.8	9.8
Elementary: 0-7 years	572	20.8	7.8
Elementary: 8 years	580	19.0	8.9
High school: 1-3 years	2,277	18.2	8.2
High school: 4 years	5,799	14.2	8.7
College: 1-3 years	1,526	14.6	12.3
College: 4 years	1,050	15.5	14.9
College: 5 years or more	328	17.1	17.1

Source: U.S. Bureau of the Census, unpublished data averaged from successive March Current Population Surveys, 1966-71. Survey questions referred to mobility status during preceding 12 months.

Employment status and major occupation group—Unemployed persons tend to have higher migration rates than persons who are employed. As can be seen in table 4.5, unemployed men 25 to 34 years old had rates of within- and between-county moving of 23

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and 17 percent, respectively, compared to 19 and 10 percent among employed men. These statistics could be misleading, because employment status is considered only *after* moving, but other surveys which have collected data on employment status before moving (Saben, 1962-63) have shown that unemployed persons are more likely to undertake geographical mobility than employed persons.

Table 4.5 Percent Moving Within and Between Counties in 1 Year, for Men 25 to 34 Years Old, by Employment Status and Major Occupation Group: United States, Average for 1966 to 1971

Employment status and major occupation group	Population (thousands)	Percent moving within counties	Percent moving between counties
Men, 25-34 years old	11,565	19.3	11.4
Employed	10,308	19.3	10.3
Professional and technical:			
Salaried	1,900	18.5	14.8
Self-employed	87	17.6	12.4
Managers and administrators:			
Salaried	951	16.9	14.4
Self-employed	240	19.4	6.0
Clerical and kindred workers	744	18.4	8.6
Salesworkers	580	18.9	12.1
Craftsmen, foremen, and kindred workers	2,098	18.8	8.6
Operatives and kindred workers	2,254	21.4	8.4
Laborers, except farm	568	21.0	9.2
Service workers	566	22.3	7.3
Farmers and farm managers	189	7.5	3.9
Farm laborers and farm foremen	131	23.3	13.1
Unemployed	339	23.3	17.2
Not in labor force	541	19.3	18.4
Armed Forces (except in barracks)	377	14.1	29.6

Source: U.S. Bureau of the Census, unpublished data averaged from successive March Current Population Surveys, 1966-71. Survey questions referred to mobility status during preceding 12 months.

Among employed men 25 to 34 years old, farmers and farm managers have the lowest rates of geographical mobility. For this age group, only 8 percent of farmers and farm managers move within counties in 1 year, and only 4 percent move between counties. Otherwise, among the 12 major occupation groups shown in table 4.5, occupation is not an important determinant of who moves within counties, although rates of moving between counties vary considerably according to occupation.

High rates of moving between counties characterize salaried professional workers, salaried managers and administrators, and farm laborers and farm foremen. In addition to farmers and farm managers, a low rate of between-county moving also characterizes self-employed managers and administrators (mostly proprietors of small businesses). For this age group, therefore, men in the nonfarm occupations with the highest migration rates (over 13) are more than twice as migratory as men in the occupation group with the lowest migration rate (6).

Once again, within-county moving is a more important component of total residential mobility than between-county moving. Among all employed men in this age group, the between-county rate of moving is only about one-half the within-county rate. Among salaried managers and administrators, however, the between-county rate is 85 percent of the within-county rate, indicating that the proportion of total moving devoted to moves of long distance is greatest in this occupation group. Long-distance moving as a proportion of total moving is also relatively great among men not in the labor force and those in the Armed Forces.

These occupational differences in moving appear to apply to industrial countries generally. A study of rates of moving within and between local areas in the United States, Canada, England and Wales, and Japan (Long, 1973a) reached three conclusions: (1) In each of the four countries blue-collar workers had higher rates of short-distance moving than white-collar workers, (2) with the exception of Japan, white-collar workers had higher rates of movement between local areas, and the greater the distance involved, the greater the proportion by which the white-collar migration rate exceeded the blue-collar rate, and (3) in all four countries professional and technical workers had higher rates of moving between local areas than other white-collar workers. These differentials in short- and long-distance moving reflect the nearly universal patterns of job search and recruitment (Hunter and Reid, 1968).

Marital and family status—Another factor influencing the likelihood of moving within and between counties in the United States is the nature of a person's family obligations. As can be seen in table 4.6, single men who are 25 to 34 years old have lower rates of moving than men who are married and living with their wives. But men who are living with their wives have lower rates of moving

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than men who fall in the category "other marital status" which consists to a large extent of men who are divorced or otherwise separated from their wives.

Table 4.6 Percent Moving Within and Between Counties in 1 Year, for Men 25 to 34 Years Old, by Marital and Family Status: United States, Average for 1966 to 1971

Marital and family status	Population (thousands)	Percent moving within counties	Percent moving between counties
Men, 25-34 years old	11,565	19.3	11.4
Single (never married)	1,830	15.9	10.7
Married, wife present	9,089	18.5	11.1
With no children under 18	1,506	27.1	15.9
With children under 18	7,583	16.8	10.2
Ages of children:			
All under 6	3,494	20.2	12.8
Under 6 and 6-17	2,836	14.1	8.1
All 6-17	1,253	13.3	7.7
Number of children:			
One	1,963	21.8	13.1
Two	2,840	15.7	9.7
Three	1,635	13.6	9.1
Four or more	1,145	15.2	8.0
Other marital status	646	30.7	19.2

Source: U.S. Bureau of the Census, unpublished data averaged from successive March Current Population Surveys, 1966-71. Survey questions referred to mobility status during preceding 12 months.

Among married couples at this age, those without children are much more likely to move than those with children. In a year's time, about 27 percent of childless couples at this age will move within counties and another 16 percent will move between counties; among couples with children, the percentages are 17 and 10.

Among couples with children, the number and ages of children exercise an important influence on moving. Couples whose children are all of preschool age (here defined as under 6 years old) are more likely to move within or between counties than couples with children of school age. Among couples with school-age children, those with preschool children as well (children under 6, and 6 to 17) are more mobile (both within counties and between counties) than couples whose children are all of school age (all 6 to 17).

In other words, the presence of school-age children is an important deterrent to moving. Large family size also deters moving, particularly long-distance moving. Among husband-wife couples with the husband 25 to 34 years old, about 13 percent of those with only one child move between counties in a year's time; but with an increasing number of children, the percent moving between counties is steadily decreased to 8 among couples with four or more children.

A more detailed analysis of these kinds of statistics (Long, 1972) revealed that the effects of number and ages of children on short- and long-distance moving were even more pronounced at younger ages but were less pronounced at ages past 35. For the age group 25 to 34, the family status variables (table 4.6) more effectively discriminate between who moves within counties than either education (table 4.4) or occupation group (table 4.5). All three sets of variables—family status, education, and occupation—are important determinants of who moves between counties.

The importance of family status in determining short-distance mobility is underscored by studies of reasons for moving. Most short-distance moves are undertaken for reasons connected with housing adjustments (often representing an increase in family size) and other family-related reasons, whereas most long-distance moves are undertaken for reasons connected with employment (to look for work, to change jobs, etc.). A Census Bureau study (Census, **Current Population Reports**, 1962-63) identified, as follows, the major reasons for moving among married couples in which the husband was 18 to 64 years old:

Major reasons for moving	Movers within counties	Movers between counties
Total (percent)	100.0	100.0
Job-related	11.4	66.8
Housing	68.7	12.1
Family status	13.5	9.4
All other and not reported . .	6.4	11.7

As this study shows, more than two-thirds of within-county moving represents housing adjustments, whereas two-thirds of moving between counties represents job-related reasons.

Chapter V. THE LABOR FORCE

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The composition of the labor force in the United States has undergone significant changes during the past few decades. New occupational and industrial fields have emerged, while the need for unskilled labor has diminished. An increasing proportion of women have been entering the labor force, particularly after childrearing, whereas a decreasing proportion of older men have remained economically active. Meantime, the labor force is better educated and more productive than ever before. Youths have been devoting more of their early adulthood to the acquiring of an education and less to activity in the marketplace.

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Some of the correlates and interactions of the many changes in the patterns of labor force participation in the United States are explored in this chapter. The first major section is concerned with the social and demographic characteristics of the labor force. Later sections deal with trends and differentials in the occupational and industrial composition of the labor force. The final section deals with recent changes and current variations with respect to the income of adults in the United States.

Social and Demographic Characteristics of the Labor Force

Men and women workers by age—The labor force participation rate is defined as the ratio of the number of persons in the labor force (persons who are employed or looking for work) to the total number of persons of working age, usually stated here in terms of persons 16 years old and over. Between 1947 and 1972 the labor force participation rate for the noninstitutional population as a whole increased only slightly from 59 to 61 percent (table 5.1). However, this overall increase conceals substantial changes in labor force participation rates by sex and age. Although the rate for men declined over the time period, the decline was more than offset by increased participation in the labor force by women. Together, these opposing trends have substantially transformed the composition of the labor force by reducing the male component from about three-fourths of the persons in the labor force in 1940 to three-fifths in 1972.

Table 5.1 **Labor Force Participation Rates and Number in Labor Force by Sex, for the Noninstitutional Population (Including Armed Forces) 16 Years Old and Over: United States, Annual Averages for 1947 to 1972**

Year	Percent of the noninstitutional population in the labor force			Labor force		
	Total	Male	Female	Male (thous.)	Female (thous.)	Ratio: Male / Female
1972.....	61.0	79.7	43.9	55,671	33,320	1.67
1970.....	61.3	80.6	43.4	54,343	31,560	1.72
1965.....	59.7	81.5	39.3	50,946	26,232	1.94
1960.....	60.2	84.0	37.8	48,870	23,727	2.10
1955.....	60.4	86.2	35.7	47,488	20,584	2.31
1950.....	59.9	86.8	33.9	45,446	18,412	2.47
1947.....	58.9	86.8	31.8	44,258	16,683	2.65

Source: U.S. Department of Labor, 1973 Manpower Report of the President, table A-1.

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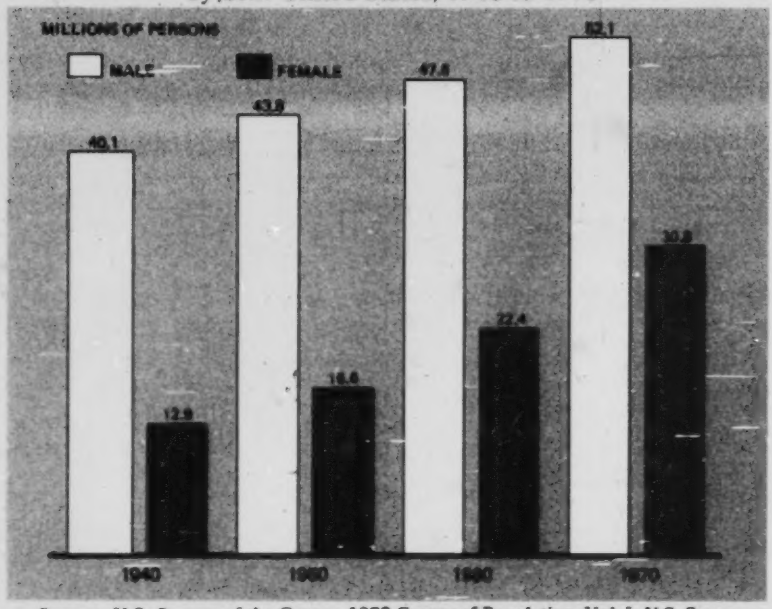
Figure 5.1 Persons 14 Years Old and Over in the Labor Force, by Sex: United States, 1940 to 1970



Source: U.S. Bureau of the Census, **1970 Census of Population, Vol. I, U.S. Summary**, figure 60.

A decline in male labor force participation has occurred among both young adults and the elderly. The data in table 5.2 show declines since the mid-1950's in the participation rates of males 16 to 24 years old, suggesting that one factor in the male decline has been the increasing tendency of young men to delay entry into the labor force. This tendency reflects their increasing attendance in secondary schools, universities, and other forms of training removed from the job in response both to opportunities afforded by an affluent society and to demands that are being made for highly trained personnel by a technologically advanced economy. Early retirement from the labor force has also reduced male participation and, as the table makes clear, this trend, although most pronounced among men 55 years old and over, has exerted downward pressure on the participation rates of men in the prime working ages, 25 to 54 years old. Reasons for early retirement include the spread of private pension plans, the liberalization of both private and public pension plans, and the improvement in disability benefits, all of which have occurred during the past few decades as society has translated increased productivity into, among other things, old age

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and health security. Another factor has probably been the increasing competition that older men have faced from younger women for many positions that could be readily filled by a person of either sex.

Table 5.2 **Labor Force Participation Rates by Age and Sex for the Noninstitutional Population (Including Armed Forces) 16 Years Old and Over: United States, Annual Averages for 1947 to 1972**

Sex and year	16-17 years	18-19 years	20-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years and over
MALE								
1972	48.3	72.0	85.9	95.9	96.5	93.3	80.5	24.4
1970	47.5	69.9	86.6	96.6	97.0	94.3	83.0	26.8
1965	44.6	70.0	88.0	97.4	97.4	95.6	84.7	27.9
1960	46.8	73.6	90.2	97.7	97.7	95.8	86.8	33.1
1955	49.5	77.1	90.8	97.7	98.1	96.5	87.9	39.6
1950	52.0	79.0	89.1	96.2	97.6	95.8	86.9	45.8
1947	52.2	80.5	84.9	95.8	98.0	95.5	89.6	47.8
FEMALE								
1972	36.6	55.6	59.1	47.6	52.0	53.9	42.1	9.3
1970	34.9	53.7	57.8	45.0	51.1	54.4	43.0	9.7
1965	27.7	49.4	50.0	38.6	46.1	50.9	41.1	10.0
1960	29.1	51.1	46.2	36.0	43.5	49.8	37.2	10.8
1955	28.9	51.0	46.0	34.9	41.6	43.8	32.5	10.6
1950	30.1	51.3	46.1	34.0	39.1	38.0	27.0	9.7
1947	29.5	52.3	44.9	32.0	36.3	32.7	24.3	8.1

Source: U.S. Department of Labor, 1973 Manpower Report of the President, table A-2.

The upward trend in female labor force participation since World War II can be attributed almost entirely to a change in the employment of married women. Single, widowed, divorced, and separated women, as a combined group, have for a long time had higher labor force participation rates than married women of comparable age living with their husbands (table 5.3). By 1950, moreover, the participation of single women and widows had already approached levels close to—or had exceeded—those of today. Married women, then, have made the difference, and among married women those beyond the usual childbearing years were the first to respond. More recently, there has been a sharp upturn in the labor force participation of younger married women and, surprisingly, among members of this group with young children.

Several developments have occurred which make work in the marketplace more desirable for many women than work in the home (which, in the United States, is not included in statistics on the labor force). The expansion in employment opportunities for

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Table 5.3 Labor Force Participation Rates by Marital Status and Sex for Selected Age Groups: United States, 1970 and 1950

Marital status and age	Male		Female	
	1970	1950	1970	1950
SINGLE				
Total, 14 years and over	50.0	58.9	41.0	46.3
14-17 years	24.7	25.2	14.9	11.3
18-19 years	57.6	65.5	49.7	52.6
20-24 years	71.6	75.1	69.6	73.3
25-29 years	81.8	80.9	79.3	79.8
MARRIED, SPOUSE PRESENT				
Total, 14 years and over	85.7	90.0	39.5	21.6
20-24 years	93.9	93.1	46.6	26.0
25-29 years	97.0	94.8	38.0	22.1
30-34 years	98.0	96.9	38.8	22.5
35-44 years	97.6	97.3	45.9	26.5
45-54 years	95.4	95.1	47.8	23.0
55-64 years	84.3	87.7	34.9	13.1
65-74 years	34.8	57.2	9.3	5.1
75 years and over	14.3	24.8	4.7	1.6
OTHER MARITAL STATUS				
Total, 14 years and over	58.4	60.1	39.5	35.5
20-24 years	83.1	78.5	61.0	54.3
25-29 years	83.9	76.0	63.1	59.3
30-34 years	84.7	78.7	63.9	62.4
35-44 years	84.0	80.3	68.5	65.7
45-54 years	79.9	78.2	68.9	56.2
55-64 years	65.3	69.1	53.8	35.8
65-74 years	23.8	38.7	15.6	11.8
75 years and over	8.3	12.3	4.0	2.2

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 6A, Employment Status and Work Experience, table 5.

women is probably the most important factor. Opportunities for increased employment of women have come about through the growth in the service sector of the economy in general and expansion in such fields as teaching (because of the need to teach the bumper group of children born after World War II), clerical work (including expanded recordkeeping in modern industrial society), retail trade (with its flexible hours and opportunities for part-time employment—characteristics important to married women, especially those with children), and nursing (a traditional enclave of female employment). So important, in fact, have service and white-collar occupations been to women that virtually all the increases in female employment between 1960 and 1971 were in these two sectors, continuing patterns established between 1947 and 1960.

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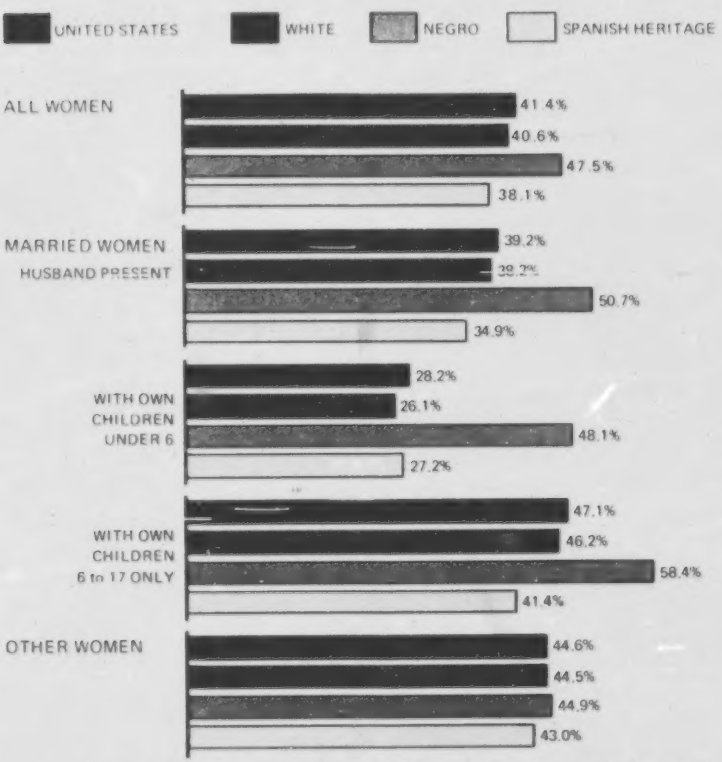
Figure 5.2 **Percent of Women 16 Years Old and Over in the Labor Force, by Marital Status, Presence of Children by Age, Race, and Spanish Heritage: United States, 1970**



Source: U.S. Bureau of the Census, **1970 Census of Population, Vol. I, U.S. Summary**, figure 64.

Other developments that have encouraged women to enter the labor force are increases in the earning potential of women resulting from better education, increased life expectancy, and rising productivity; increasing societal acceptance of the participation of women in the labor force, especially during World War II and the Vietnam War; progress through legal and social means toward greater equality of opportunity for women in the labor force; the recent increase in divorce, which has caused women to enter or continue to participate in the labor market for self-support; and the recent decline in the fertility rate.

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Working mothers The recent decline in the fertility rate has undoubtedly been influential in increasing the labor force participation of women since 1960, especially among those women who are in the prime childbearing and childrearing ages of 25 to 34 years old. The highest fertility rates over the past few decades occurred during the late 1940's and the 1950's; in that period, women in their peak childbearing years witnessed their smallest increase in labor force participation. Then, as fertility decreased, labor force participation rose dramatically, especially during the late 1960's and early 1970's. Childbearing and childrearing, nevertheless, are still major factors causing some women to interrupt and others to curtail their careers, even though the participation rate increased from 12 percent in 1950 to 30 percent in 1972 among women with children under 6.

Table 5.4 Labor Force Participation Rates of Women Ever Married (and Women Married, Husband Present) 16 to 59 Years Old, by Number and Ages of Own Children and Age of Woman: United States, 1970

Number and ages of own children under 18 years old	Total, 16-59 years old	Age of woman				
		20-24 years	25-29 years	30-34 years	35-39 years	40-44 years
All women ever married	47.2	48.7	41.1	42.0	47.1	51.1
No own children under 18	57.1	71.1	72.4	66.7	64.2	62.4
No children ever born	64.8	(NA)	(NA)	72.2	68.7	65.3
1 own child under 18	46.9	38.6	43.0	51.7	56.6	55.7
Age 6-17 years	53.6	56.3	60.0	61.5	60.4	57.1
Age under 6 years	36.9	38.1	38.2	38.4	37.9	37.0
3-5 years	48.2	52.0	50.0	45.8	42.4	(NA)
Under 3 years	32.4	34.5	31.6	31.9	32.5	(NA)
2 own children under 18	40.9	29.0	33.4	42.1	48.6	48.4
Younger 6-17 years	50.3	51.2	51.4	52.6	53.6	51.0
Younger under 6 years	29.9	28.6	29.9	30.8	31.8	31.6
3-5 years	36.5	40.1	37.8	35.5	34.1	(NA)
Under 3 years	25.4	26.2	24.5	25.0	27.9	(NA)
3 or more under 18	35.7	26.2	28.2	34.5	39.5	39.8
Youngest 6-17 years	46.6	44.4	46.5	48.7	48.9	46.0
Youngest under 6 years	27.4	25.7	26.1	27.3	28.7	28.5
3-5 years	32.8	34.6	34.8	33.2	32.3	(NA)
Under 3 years	22.5	24.3	21.6	21.3	23.8	(NA)
Women married, husband present	43.6	52.3	38.0	38.8	43.8	47.9

NA Not available.

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 6A, Employment Status and Work Experience, table 13.

Table 5.4 shows that rates of working mothers and working wives are relatively low at ages 25 to 34, when the burden of childbearing and childrearing is greatest. The same table reveals that in 1970 labor force participation was negatively related to the number of children and positively related to the age of children in the home. Women were by far the least likely to work outside the home if they had children under 3 years old.

A report entitled **Child Care Arrangements of Working Mothers in the United States** was based on a survey conducted in 1965 for the U.S. Children's Bureau and the U.S. Women's Bureau by the U.S. Bureau of the Census (Low and Spindler, 1968). The study covered the 12.3 million children under 14 years of age whose 6.3 million mothers had worked 27 weeks or more in 1964. The results showed that 10 percent of the children were cared for outside the home or extended family—7 percent in family day care by a nonrelative and 3 percent in group care by a nonrelative. Thus, for 90 percent of the children under 14 years of age, the care they received was given in their own home or by a relative outside the home.

Another approach in presenting the results shows that nearly half (45 percent) of the children were cared for in their home: The father was the caretaker for 15 percent; another relative (often an older child or grandparent) for 21 percent; and a nonrelative for 9 percent, with half being in charge of other household duties in the child's home. Approximately 16 percent were cared for in the home of someone else—about half by relatives and half by nonrelatives—and 3 percent received group care by a nonrelative. Another 13 percent were looked after by their mother while she worked, 15 percent required no care because their mother worked only while they were at school, and 8 percent looked after themselves while their mother worked. Since the study was made (1965), considerable expansion has occurred in the enrollment of children in supervised nursery schools, as indicated in the section of chapter III on "School enrollment," but more recent information on custodial day care of children is not available.

In March 1973, 26.2 million children under 18 years old in the United States had working mothers (BLS, 1973a, table 1). This represented an increase of 0.6 million children of working mothers since March 1970, whereas the total number of children under 18 had dropped by 1.5 million in this period because of the decline in fertility. Consequently, the proportion of all children under 18

whose mother was in the labor force rose from 39 percent in 1970 to 41 percent in 1973. Again, because of the decline in fertility, the average age of children under 18 had risen somewhat in the 3-year period.

No-worker and multiple-worker families In 1970, 45 percent of all families in the United States had one person in the labor force, 12 percent had no workers, and the remaining 43 percent had two or more. The largest proportion of families with no persons in the labor force was 24 percent for two-person families. Families of this size represented a particularly large proportion of families consisting of elderly couples, with both the husband and wife no longer working. As size of family increased, the median number of persons in the labor force increased, because the larger families had more human resources from which to draw workers. Families with female heads tended to have a smaller number of labor force participants because of such reasons as the absence of a husband as a worker and the large proportion with young children in the home who needed care.

The trend toward increased labor force participation by women was the chief reason for the increase during recent years in the proportion of families with multiple workers. Such families accounted for 55 percent (21.3 million) of all families headed by married men in March 1972, whereas 10 years earlier, multiple worker families constituted only 45 percent (16.1 million) of the husband-wife families with the head in the labor force.

Worker rates and education While young adults are attaining their education, their labor force participation rates tend to be low, but after they have completed their schooling, their worker rates tend to be high if they have at least completed a high school education. Thus, the 1970 census showed that among the 15 million persons 16 to 39 years old who were enrolled in school on either a part-time or full-time basis in 1970, 5.9 million, or 40 percent, were labor force participants; by contrast, the labor force participation rate was 70 percent for persons in the same age range who were not enrolled in school.

The positive relationship between educational attainment and worker rates in 1970 is reflected in the fact that 61 percent of the labor force were high school graduates, as compared with only 53 percent of the entire population 16 years and over and 41 percent of persons not in the labor force. Fifty-nine percent of the male

labor force and 65 percent of the female labor force were high school graduates. Among male college graduates at or near the peak of their employment (45 to 54 years old) in 1970, only 2 percent were not in the labor force; among men of similar age who were not high school graduates, the corresponding figure was 11 percent. The difference is in the same direction for women 45 to 54 years old: 33 percent of the college graduates were not in the labor force, as compared with 53 percent of the women who were not high school graduates.

Worker rates and residence—The proportion of men 16 years old and over in 1970 who were in the labor force was lowest for those residing in rural-nonfarm areas (about 73 percent), where many of the retired, the disabled, and the institutionalized tend to be concentrated. Among women 16 years old and over, the labor force participation rate was lowest in rural-farm areas, with only 30 percent of all women participating in the labor force. Women in rural-farm areas often lack opportunities for work outside the home within a reasonable commuting distance. At the same time, only 2 percent of the rural-farm men were reported as looking for work in 1970. Probably many of the men on farms who want to find a new place to work move to a nonfarm area. Among adult farm residents, underemployment—being employed for only a part of the year, for a part of the week, or at relatively unproductive work—is often more serious than unemployment.

Reasons for not working—In 1972, the great majority of men 16 years old and over (80 percent) were in the labor force, and all but 5 percent of the male labor force were employed (Labor, 1973, table A-1). For women the corresponding figures were 44 percent in the labor force and all but 7 percent of the female labor force employed. The remaining 20 percent of the men and 56 percent of the women 16 and over were not in labor force.

In 1972, 5 percent of the men and 8 percent of the women who had worked at some time during the preceding year had left their last job for one reason or another. The main reasons are presented in table 5.5. Women were more likely than men to give their home responsibilities as the reason, whereas men were more likely to be entering retirement. A smaller proportion of white persons than of other persons stated that they had left their last job because of economic reasons, especially the ending of a seasonal job.

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Table 5.5 **Percent Distribution of Persons Not in the Labor Force Who Stopped Working During Previous 12 Months, by Reason for Leaving Last Job, and by Race and Sex: United States, Annual Averages for 1972 and 1967**

Reason for leaving last job	Total		1972 by sex		1972 by race	
	1972	1967	Male	Female	White	Other
Total	100.0	100.0	100.0	100.0	100.0	100.0
School, home responsibilities	46.8	49.2	41.0	50.1	47.5	41.3
Ill health, disability	9.1	9.5	10.7	8.2	8.6	12.7
Retirement, old age	8.1	5.3	14.5	4.4	8.6	4.4
Economic reasons	19.3	17.1	17.1	20.6	18.6	24.4
End of seasonal job	8.6	9.2	8.6	8.5	8.0	12.7
Slack work	4.9	3.3	4.2	5.3	4.8	5.9
End of temporary job	5.8	4.6	4.2	6.8	5.8	5.9
All other reasons	16.7	18.9	16.8	16.7	16.7	17.3

Source: U.S. Department of Labor, 1973 Manpower Report of the President, table A-9.

Occupation

The expansion and development of the U.S. economy have generated much greater growth in some occupations than in others and, despite increasing total employment, some occupations have declined in importance. Patterns of occupational change between 1900 and 1960 involved a shift from agricultural to nonagricultural employment, the movement from less skilled to more skilled manual labor, the decline in private household service, and the rise in nondomestic service occupations (Taeuber and Taeuber, 1971, p. 181). Most of these general patterns of change continued during the 1960's.

Changes in composition by occupation group—Between 1960 and 1970, the employed population 14 years old and over increased 20 percent (table 5.6). Thus, if the percentage increase for an occupation group was greater than 20, that occupation was growing, not only in absolute numbers but also in its proportionate share of the employed population. If the percentage change was less than 20, that occupation was contracting in its share of employment, even though it may have included more employed persons in 1970 than it did in 1960. Expansion at a rate considerably above the percentage increase for the employed as a whole was recorded for three occupation groups—professional, technical, and kindred workers, 55 percent; clerical and kindred workers, 43 percent; and service workers, except private household, 40 percent.

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Table 5.6 Employed Population 14 Years Old and Over, by Major Occupation Group: United States, 1970 and 1960

Major occupation group	Number (thous.)		Percent		Percent change, 1960-1970
	1970	1960	1970	1960	
Total employed, 14 years old and over	77,309	64,639	100.0	100.0	19.6
White-collar workers:					
Professional, technical, and kindred workers	10,831	6,986	14.0	10.8	55.0
Managers and administrators, except farm	6,139	5,626	7.9	8.7	9.1
Salesworkers	5,267	4,637	6.8	7.2	13.6
Clerical and kindred workers	13,035	9,126	16.9	14.1	42.8
Blue-collar workers:					
Craftsmen and kindred workers	9,996	8,945	12.9	13.8	11.8
Operatives, except transport	9,816	8,822	12.7	13.6	11.3
Transport equipment operatives	2,766	2,526	3.6	3.9	9.5
Laborers, except farm	3,213	3,322	4.2	5.1	-3.3
Farm workers:					
Farmers and farm managers	1,343	2,507	1.7	3.9	-46.4
Farm laborers and farm foremen	924	1,486	1.2	2.3	-37.8
Service workers:					
Service workers, except private household	8,065	5,754	10.4	8.9	40.2
Private household workers	1,089	1,718	1.4	2.7	-36.6
Not reported	4,824	3,184	6.2	4.9	51.5

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, table 221.

The remaining occupational categories were expanding more slowly or were contracting over the 10-year period. The category, craftsmen and kindred workers, acquired a million (net) new members between 1960 and 1970, but the proportional increase (12 percent) was less than its proportionate share of new workers. The following occupations grew less than average but in 1970 were almost as large a part of the total as in 1960: salesworkers; operatives, except transport; transport equipment operatives; and managers and administrators, except farm.

The remaining four occupational categories had an absolute as well as a proportional decrease in the number of workers. Three of these occupational groups--farm laborers and farm foremen, private household workers, and farmers and farm managers--were quite

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small (only around a million each in 1970), so that the large size of their percentage decreases had little effect on the growth of employed workers in general.

Occupations of men and women—In 1970 more men were employed as craftsmen and kindred workers than were men in any of the other major groups (table 5.7). Over one-fifth of the 48 million employed men 16 years old and over were in this group, which includes some of the most skilled of the blue-collar workers. Each of two categories—professional, technical, and kindred workers and operatives, except transport—had 14 percent of the employed men. Over 11 percent of all male workers were nonfarm managers and administrators.

About 35 percent of the 29 million employed women were clerical and kindred workers. Also, a large proportion (17 percent) of the employed women were service workers, except private household. Percentages for professional, technical, and kindred workers and operatives, except transport, were 16 percent and 14

Table 5.7 Percent Distribution of the Employed Population 16 Years Old and Over, by Major Occupation Group, Sex, Race, and Spanish Heritage: United States, 1970

Major occupation group	Total		Negro		Persons of Spanish heritage	
	Male, percent	Female, percent	Percent of total male	Percent of total female	Percent of total male	Percent of total female
Total employed, 16 years old and over	100.0	100.0	8.5	11.4	4.0	3.4
White-collar workers:						
Professional, technical, and kindred workers	14.3	15.7	3.5	8.2	2.5	2.1
Managers and administrators, except farm	11.2	3.6	2.3	4.6	2.3	2.3
Salesworkers	6.9	7.4	2.5	3.9	2.7	2.8
Clerical and kindred workers	7.6	34.9	9.0	6.8	4.0	2.9
Blue-collar workers:						
Craftsmen and kindred workers	21.2	1.8	6.1	9.1	3.7	4.1
Operatives, except transport	13.6	13.9	12.2	13.3	5.5	5.8
Transport equipment operatives	5.9	.5	14.3	10.0	4.4	2.8
Laborers, except farm	6.6	1.0	20.3	17.4	6.1	4.6
Farm workers:						
Farmers and farm managers	2.8	.2	2.7	7.8	1.0	1.1
Farm laborers and farm foremen	1.7	.5	17.7	22.6	12.9	12.0
Service workers:						
Service workers, except private household	8.1	16.6	16.5	17.6	5.6	3.8
Private household workers	.1	3.8	49.2	53.2	4.9	3.6

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, table 223.

percent, respectively. Women were more highly concentrated in white-collar occupations than men, with the four component groups containing 62 percent of the employed women but only 40 percent of the men.

The greatly increased participation of women in the labor force was discussed earlier in this chapter. Census Bureau statistics show the following proportions of female workers in the several major occupational groups in 1970. Women were particularly concentrated (in comparison with men) in three major occupational groups: private household workers (97 percent female), clerical and kindred workers (74 percent female), and service workers, except private household (56 percent female). Women workers tended to be underrepresented in five classes of occupations: managers and administrators, except farm (17 percent female), farm laborers and farm foremen (16 percent female), laborers, except farm (8 percent female), and farmers and farm managers, craftsmen and kindred workers, and transport equipment operatives (all 5 percent female). In the remaining occupational groups, women tended to constitute about the same proportion as in total employment.

Comparisons by race and Spanish heritage—In 1970, Negro men constituted 9 percent of all employed men 16 years old and over (table 5.7). If this standard is used for the major occupational groups, Negro men were clearly underrepresented in three of the four white-collar occupations and in the category, farmers and farm managers. On the other hand, Negro men were substantially overrepresented in the two classes of operatives, farm and nonfarm labor, service work, and private household work. Although only four-tenths of 1 percent of the Negro males were employed in private household work, they constituted almost half of all male workers in this occupational group.

Negro women represented 11 percent of all employed women in 1970. Occupations in which Negro women were disproportionately underrepresented included managerial, sales, and clerical jobs; they were notably overrepresented in farm and nonfarm labor, and in private household and other service work.

Persons of Spanish heritage represented much smaller proportions of total employment than Negroes—4 percent for men of Spanish heritage and 3 percent for women. However, although both sexes were generally underrepresented in the white-collar occupations, the proportion of persons of Spanish heritage who were

employed in these jobs was greater than that of Negroes. Both men and women of Spanish heritage were particularly underrepresented in the category, farmer and farm managers, and overrepresented among farm laborers and farm foremen.

Age composition and occupation—Laborers, except farm, comprised the youngest age group of the 12 occupation categories, with a median age of 35 years. Men constituted 92 percent of all persons in this category. Approximately 634,000 persons, or 19 percent of this group, were under 20 years of age. Persons in the group of clerical and kindred workers had the second lowest median age of the occupational categories, 36 years. Women constituted almost three-fourths of the clerical workers and had a median age of 35 years; this category contained the largest number of persons under 20 years of age, with over 1.3 million persons.

Farmers and farm managers had the highest median age, 51 years. This relatively high median age is directly related to the sharp decline in farm employment. Comparatively few young men are entering agricultural occupations, so that those who remain tend to be older men. Private household workers also had a relatively high median age, 49 years.

In general, younger workers tend to be concentrated in new and expanding occupations (for example, professional occupations in 1970), occupations which offer training and experience that are prerequisites to other occupations (for example, clerical, sales, and operative jobs are often steppingstones to managerial and craft occupations), and occupations which are physically demanding (laborers). In contrast, there is a tendency for older workers to be employed in occupations that are declining (farmers and farm managers and private household workers) and occupations into which one is advanced after many years of service or training (Bogue, 1959b, pp. 501-02).

Education and occupation—In 1970, the median educational attainment for all men aged 16 and over in the experienced civilian labor force (the currently employed as well as the unemployed who had worked in the past) was 12.3 years of school completed. Most of the professional-technical occupations require extensive academic training, a requirement reflected in a median of over 4 years of college (over 16 years of school) for male workers in these occupations (Census, 1970, II-7A, table 5). The next highest median number of school years completed for men was 12.9 by

managers and administrators, except farm. Farm laborers and farm foremen had the lowest median education of all the major occupations, with 8.9 years of school completed. Medians for other groups ranged from 9.3 years for private household workers to 12.7 years for salesworkers.

The levels of educational attainment for women in the various occupations were similar to those for men. The median for all females aged 16 and over in the experienced civilian labor force was 12.4 years of school completed. Women who were professional, technical, and kindred workers had a median of 16.1 years of school completed, and private household workers had the lowest median, 9.0 years. Medians of other groups ranged from 9.5 years for farm laborers and farm foremen to 12.6 years for managers and administrators, except farm.

Earnings and occupation—The median income from earnings only for the male experienced civilian labor force 16 years old and over who worked year-round (50 to 52 weeks) in 1969 was $8,500. The two best paid occupation groups, with median earnings of more than $3,000 above the median for all male workers, were the categories, professional, technical, and kindred workers, with $11,800, and managers and administrators, except farm, with $11,700. Nevertheless, not all of the higher paying jobs for men were in the professional or managerial groups. Although the median earnings for salesworkers was $9,500, over one-half million salesmen earned $15,000 or more in 1969. Craftsmen, with a median of $8,700, came closest to being typical of all male workers in earning power. Clerical workers, operatives, nondomestic service workers, laborers, and farmers had median earnings below the median for all male workers. Private household work had the lowest median of all occupation groups; its median of $3,100 for a year's work was $5,400 below that for all men. Moreover, the median of the best paid category, professional and technical workers, was almost four times the median of this lowest group.

On the average, women earn considerably less than men in each occupational group. However, wide differences in typical earnings are also found among women in the several occupational categories. The median earnings for the female experienced civilian labor force 16 years old and over who worked year-round in 1969 was $4,700. As was true for males, females working in professional occupations had the highest median earnings ($6,900), and those in private household jobs had the lowest median earnings ($1,500).

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The range between these two medians was even greater than that for males, with the professional workers earning almost five times as much as private household workers. Among these year-round workers the differences in earnings reflect not only widely different amounts of training and skill but also unequal average numbers of hours worked per week.

The number of women employed as registered nurses had an above-average increase between 1960 and 1970 (47 percent), and their median earnings also increased sharply, being 76 percent higher in 1969 ($5,600) than in 1959 ($3,200). By contrast, the number of childcare workers in private households decreased by 30 percent between 1960 and 1970, and their very low median earnings increased during that period by only 23 percent, or from $546 to $671. This rate of increase was only about one-third the 62 percent increase for all women with earnings. These two illustrations demonstrate that the patterns of change in number of female earners and in their earnings have varied widely during the 1960's. (The figures in this paragraph are from Census, 1970, II-7A, tables 1 and 16; and Census, 1960, II-7A, table 29.)

Industry

1970 industrial structure—The data presented in table 5.8 show that, as of 1970, the largest single industry group was

Table 5.8 **Employed Population 16 Years Old and Over by Major Industry Group, With Percent of the Employed Who Were Females: United States, 1970**

Major industry group	Number (thous.)	Percent	Percent female
Total employed, 16 years old and over....	76,554	100.0	37.8
Agriculture, forestry, and fisheries.....	2,840	3.7	11.2
Mining.....	631	.8	8.0
Construction.....	4,572	6.0	5.8
Manufacturing.....	19,337	25.9	28.6
Transportation, communications, and other public utilities.....	5,186	6.8	21.5
Wholesale and retail trade.....	15,373	20.1	41.2
Finance, insurance, and real estate.....	3,838	5.0	49.8
Business and repair services.....	2,395	3.1	28.2
Personal services.....	3,537	4.6	71.5
Entertainment and recreation services.....	631	.8	35.6
Professional and related services.....	13,511	17.6	63.3
Public administration.....	4,202	5.5	30.5

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, table 236.

manufacturing; over one-fourth of the employed population 16 years old and over, or 19.8 million workers, were engaged in the fabrication of goods. Only a little smaller than the manufacturing force were the 15.4 million workers who were engaged in wholesale and retail trade, accounting for 20 percent of total employment.

Professional and related services was the third largest industry; it occupied 13.5 million, or 18 percent, of the employed population. Ranked after these three industries were the following six major industries, each of which employed from 7 percent down to 4 percent of the work force: transportation, communications, and other public utilities; construction; public administration; finance, insurance, and real estate; personal services; and agriculture, forestry, and fisheries. The remaining three classes of industry, although of importance to the economy, offered employment to a comparatively small fraction of workers. Only 3 percent of employed persons were engaged in business and repair services, and only 1 percent each in mining and in entertainment and recreational services.

Changes in industrial composition—The changes that took place between 1960 and 1970 were largely continuations, with some modifications, of changes that had occurred in previous decades of the 20th century. The salient long-term industrial trends were the rise in the proportion of workers employed in services and the decline in the proportion gainfully occupied in agriculture. Table 5.9 shows that although employment in all industries increased by 20 percent between 1960 and 1970, employment in the two primary industries of agriculture, forestry, and fisheries and of mining decreased by 38 percent and 8 percent, respectively. In 1970, only 4 percent of the workers were engaged in agriculture.

In contrast, the service industries, except for personal services, had substantial increases in employment during the decade: 66 percent for professional and related services, 40 percent for business and repair services, and 18 percent for entertainment and recreation services. The personal service industry, however, had the second largest decrease in employment after that for agriculture, with a decline of 15 percent. This decline was due primarily to a 37-percent drop of employment in the largest component of personal services, namely, private household service (housekeeping, maid service, etc.). Excluding employment in private households, personal services had a small increase of 7 percent.

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Table 5.9 **Employed Population 14 Years Old and Over, by Major Industry Group: United States, 1970 and 1960**

Major industry group	Number (thousands)		Percent change, 1960-1970		
	1970	1960	Total	Male	Female
Total employed, 14 years old and over	77,309	64,639	19.6	10.7	37.8
Agriculture, forestry, and fisheries	2,700	4,349	-37.9	-38.7	-30.8
Mining	605	654	-7.6	-10.6	51.7
Construction	4,219	3,816	10.6	8.3	64.7
Manufacturing	18,880	17,514	7.8	3.5	20.7
Transportation, communications, and other public utilities	4,906	4,458	10.0	4.4	37.0
Wholesale and retail trade	14,613	11,793	23.9	17.4	34.9
Finance, insurance, and real estate	3,652	2,695	35.5	25.4	47.5
Business and repair services	2,253	1,607	40.2	28.2	84.9
Personal services	3,294	3,862	-14.7	-12.2	-15.7
Entertainment and recreation services	591	503	17.5	10.4	33.2
Professional and related services	12,780	7,695	66.1	54.3	73.9
Public administration	4,056	3,086	31.5	26.2	45.3
Not reported	4,760	2,608	82.5	73.5	96.5

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, table 235.

The finance, insurance, and real estate industry increased 36 percent in employment, and the public administration industry increased 32 percent. Within the public administration industry, employment in the Federal Government grew by 22 percent, while in the State and local government field (including office managers and clerical workers), employment grew by 41 percent, or by almost twice as much.

Distribution of men and women by industry—In 1970 about one-half of the industry groups—agriculture, mining, construction, manufacturing, transportation, and business and repair services—had a distinctly small proportion of women (table 5.8). Well above-average concentrations of female workers were found in finance, personal services, and professional services. A comparison of the proportional change between 1960 and 1970 for male and female workers (table 5.9) shows that the employment of women increased at a much greater rate than the employment of men in every industry for which there was any increase in the number of

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employed women. The number of workers engaged in agriculture declined over the decade, but the decrease for females was smaller than that for males. The only other industry in which females decreased in number during the 1960's was personal services; in this industry, the rate of decrease for female workers was greater than that for male workers. Thus, the decade from 1960 to 1970 witnessed a substantial increase in the ratio of females to males in all major industry groups except personal services.

Comparisons by race and Spanish heritage—In the nonagricultural industries, the race differential is much smaller than the sex differential (table 5.10). Also, the race differential is considerably smaller by industry than by occupation. Nevertheless, there are some significant differentials between industries which might have an indirect occupational basis.

Table 5.10 Percent Distribution of the Employed Population 16 Years Old and Over, by Major Industry Group, Sex, Race, and Spanish Heritage: United States, 1970

Major industry group	Total		Negro		Persons of Spanish heritage	
	Male, percent	Female, percent	Percent of total male	Percent of total female	Percent of total male	Percent of total female
Total employed, 16 years old and over	100.0	100.0	8.5	11.1	4.0	3.4
Agriculture, forestry, and fisheries	3.3	1.1	8.6	14.6	3.6	7.3
Mining	1.2	.2	3.6	3.6	1.7	3.5
Construction	9.0	.9	8.8	3.2	3.9	2.5
Manufacturing	29.8	19.6	9.0	9.1	3.8	3.3
Transportation, communications, and other public utilities	8.6	3.9	9.8	8.9	3.2	3.0
Wholesale and retail trade	19.0	21.9	6.8	6.1	4.2	3.3
Finance, insurance, and real estate	4.0	6.6	3.5	6.1	3.0	3.2
Business and repair services	3.6	2.3	8.0	8.0	4.5	3.1
Personal services	2.1	8.7	15.8	32.6	6.1	6.4
Entertainment and recreation services	.9	.8	9.2	6.7	4.8	3.2
Professional and related services	10.1	20.6	8.4	11.6	3.2	2.7
Public administration	6.1	4.1	10.1	15.2	4.0	3.1

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, table 236.

In 1970, disproportionately few Negro males were employed in mining; finance, insurance, and real estate; and wholesale and retail trade; and disproportionately many worked in personal services and public administration. Negro females were not as equally distributed among industries as Negro males; above-average concentrations of Negro females were found in the personal service, public administration, and agriculture industries. Almost three times as many Negro female workers were engaged in personal services as would be expected by the proportion which they

represented of total female employment. Negro females in professional and related services (43 percent of whom were teachers below the college level) were found in almost the same proportion as that for employment in all industries (Census, 1970, II-7C, table 2). The remaining industries employed disproportionately fewer Negro females.

Both males and females of Spanish heritage were fairly evenly distributed throughout the array of major industries. Males of Spanish heritage were overrepresented in personal services and agriculture and underrepresented in finance and professional services. Above-average proportions of Spanish females were engaged in agriculture, and below-average proportions were employed in construction and professional services.

Age and industry—Among employed males 16 years old and over, those in entertainment services and trade had the lowest median age, 37.2 years in both industries. Males engaged in agriculture had the highest median age, 46.1 years.

Women averaged 1 year younger than men for all employed workers (39.2 years for women versus 40.2 years for men). The lowest median age, 33.2 years, was for women in transportation, communications, and other public utilities. Over one-fifth of the women in this category were telephone operators. On the other end of the scale, median ages for women employed in agriculture and personal services were 42.1 years and 45.1 years, respectively. Hence, the median age range for women was considerably wider than that for men.

Educational attainment and industry—Among all males 16 years old and over in the experienced civilian labor force, the median number of school years completed was 12.3, with 58 percent having completed 4 years of high school or more. Males in the agriculture, forestry, and fisheries industry group had the lowest median number of school years completed, 10.1 years. Those in professional and related services had a median of 16.3 years, the highest median for the 12 industrial groups. Over four-fifths of the males in this industry group had completed 4 years of high school or more, and over half had completed at least 4 years of college.

For all females 16 years old and over in the experienced civilian labor force, the median number of school years completed was 12.4 years; almost two-thirds of the females had completed 4

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years of high school or more, and one-tenth had completed 4 years of college or more. The range of average school years completed by women was much narrower than that for men. The lowest level of educational attainment was for those in personal services (beauty shops, commercial cleaning shops, etc.), with a median of 10.7 years of school completed; 37 percent of the women in this industry had completed 4 years of high school or more. In contrast, the highest median number of school years completed (12.9 years) was by women in professional and related services (largely educational and health services). Nearly four-fifths of these women had completed 4 years of high school or more, and 29 percent had completed 4 years of college or more.

Earnings and industry—Males 16 years old and over in the experienced civilian labor force who worked year-round had median earnings of $8,500 in 1969 (table 5.11). Males employed in finance, insurance, and real estate had the highest earnings of those in any major industry, with a median of $9,900. Ranked closely behind were males engaged in professional services and public administra-

Table 5.11 Median Earnings in 1969 of Year-Round Workers in the Experienced Civilian Labor Force 16 Years Old and Over With Earnings, by Major Industry Group and Sex: United States, 1970

Major industry group	Median earnings in 1969 (dollars)		Female as percent of male earnings
	Male	Female	
Experienced civilian labor force 16 years old and over	8,517	4,715	55.4
Agriculture, forestry, and fisheries	4,893	3,155	64.5
Mining	8,718	5,945	68.2
Construction	8,660	5,460	63.0
Manufacturing	8,796	4,905	55.8
Transportation, communications, and other public utilities	8,949	5,728	64.0
Wholesale and retail trade	7,855	3,877	49.4
Finance, insurance, and real estate	9,914	4,983	50.3
Business and repair services	8,149	5,067	62.2
Personal services	6,374	2,611	41.0
Entertainment and recreation services	7,443	4,367	58.7
Professional and related services	9,190	5,050	55.0
Public administration	9,002	6,169	68.5

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, U.S. Summary, tables 240 and 241.

tion who earned $9,200 and $9,000, respectively; a substantial proportion of these men worked in schools, hospitals, and government offices. Males working in the trade, entertainment, and personal service industries had earnings below the average for all male workers, while those in agriculture had the lowest median earnings of all industries ($4,900).

In each industry group, as was true for occupation, females who worked year-round earned a great deal less than men who likewise worked year-round. The median earnings of $4,700 for female workers in all industries was only 55 percent of that for males (table 5.11). Male and female earnings had the greatest convergence in public administration, where a large proportion of the employees are accountants, bookkeepers, and postal or government clerical workers; here, female earnings averaged 69 percent of male earnings. The industry which showed the greatest divergence was personal services in which female earnings amounted to only 41 percent of male earnings. Accordingly, women in public administration had the highest median earnings ($6,200), and those in personal services, the lowest median earnings ($2,600).

Income

The amount of income received by working adults is, in one sense, the ultimate consequence of the person's educational background, employment opportunities, choice of occupation and residential location, personal effort, and many other related factors. For adults who do not work, the income they receive is generally the consequence of earlier saving and investment or of benefits provided through public legislation or private charity. The principal meaning of income in the present context, however, relates to personal and family well-being, in the sense of the ability of persons and families to meet their material needs. Differences in the amount of income received during recent years from various sources by various groups within the population of the United States will be the main focus of this section.

Statistics on income shown in the decennial census reports are for money received during the calendar year before the census. These statistics do not extend to nonmoney income, an important and growing component of income in the United States. Most of the data presented here are in terms of family income, that is, the combined income of all family members 14 years old and over. Median family income divides families into two groups, one-half

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Table 5.12 Income of Families by Selected Ages of Head, and Income of Persons 14 Years Old and Over by Sex: United States, 1972

Money income in 1972 (survey of March 1973)	Income of families				Income of persons	
	All families	Age of head				
		25-34 years	45-54 years	65 and over	Male	Female
Number.....thous..	54,373	11,941	11,258	7,590	73,572	80,896
With income.....thous..	(1)	(1)	(1)	(1)	67,474	54,487
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0
Under $1,000.....	1.3	1.2	1.1	1.2	8.9	22.9
$1,000-$2,999.....	5.9	4.5	2.9	14.1	13.9	31.5
$3,000-$4,999.....	9.4	7.2	5.2	24.7	12.2	18.5
$5,000-$6,999.....	10.2	9.7	6.3	18.2	12.1	12.6
$7,000-$9,999.....	16.8	19.2	13.1	17.0	18.2	9.6
$10,000-$14,999.....	26.1	33.3	26.3	12.4	20.9	4.0
$15,000-$24,999.....	23.0	21.9	32.2	8.9	10.2	.8
$25,000 and over.....	7.3	3.2	12.9	3.5	3.4	.3
Median income.....dol..	11,116	11,161	14,056	5,968	7,450	2,599
Mean income.....dol..	12,625	11,699	15,690	8,356	8,635	3,577
Head (person) year-round full-time worker: Percent of total heads (persons) excluding Armed Forces.....	64.1	73.7	78.3	12.5	57.4	30.7
Median income.....dol..	13,521	12,504	15,611	10,694	10,538	6,053
Mean income.....dol..	15,183	13,237	17,276	13,816	11,797	6,526

[1]Families with no income are included in the category "Under $1,000."

Source: U.S. Bureau of the Census, Current Population Reports, "Money Income in 1972 of Families and Persons in the United States," Series P-60, No. 87, tables 3 and 5.

having more income and the other having less income than the median. "Earnings" constitute wages and salary and also self-employment income. "Unearned income" includes various forms of transfer and property income. Distributions of the income of families and persons in the United States, presented in table 5.12, are derived from an annual survey conducted in March 1973 covering income for the preceding calendar year.

Contributions of wives to family income—During the last two decades, median family income in the United States has more than tripled. Even after accounting for the effects of inflation over this

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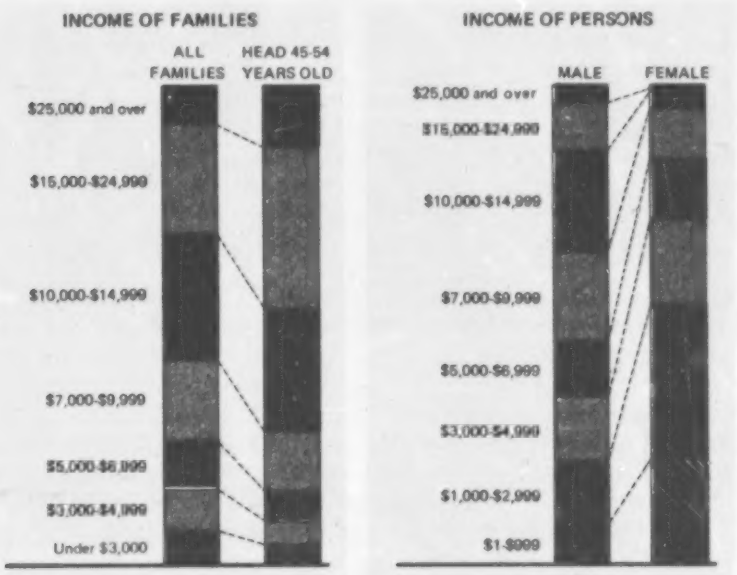
period, the average family income has doubled, with the increase occurring at a faster rate during the 1950's than the 1960's. The median family income rose from $5,660 in 1959 to $9,590 in 1969, an increase of 69 percent in the 10-year span. The residual increase in real purchasing power after adjusting for inflation was 35 percent—a still substantial proportion for a period of one decade.

Figure 5.3 ***Income in 1972 of Families, and of Persons 14 Years Old and Over by Sex: United States***



Source: U.S. Bureau of the Census, **Current Population Reports**, "Money Income in 1972 of Families and Persons in the United States," Series P-60, No. 87, tables 3 and 5.

One of the main reasons for the large increase in family income is the fact that more wives went to work to supplement the economic resources of their family. The 1970 census showed that, in husband-wife families, all but 1 percent of the husbands received income in 1969, and 57 percent of the wives received income, also. About one-half of the wives (47 percent) received their money as earnings. In 1959, 45 percent of the wives received money income and 36 percent were earners. Wives constituted more than four out of every five second workers in husband-wife families in 1969. They constituted almost 9 out of every 10 such workers where the husband was 25 to 44 years old (Census, 1970, II-8A, table 1).

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Table 5.13 **Percent of Wives With Income and Median Income of Wives With Income by Income of Husband, for Husband-Wife Families in 1969 and Married Couples in 1959: United States**

Income of husband	Percent of wives with income		Median income of wives with income (dollars)	
	1969	1959	1969	1959
Total	57.3	45.5	2,618	1,424
$1-$999 or loss	67.9	58.9	1,026	744
$1,000-$1,999	69.8	55.8	1,323	864
$2,000-$2,999	68.0	51.5	1,565	1,126
$3,000-$3,999	65.1	49.2	1,908	1,595
$4,000-$4,999	62.6	47.4	2,414	1,855
$5,000-$5,999	60.8	44.4	2,840	1,925
$6,000-$6,999	60.7	40.9	3,123	1,878
$7,000-$7,999	59.6	36.2	3,234	1,739
$8,000-$9,999	56.6		3,243	
$10,000-$14,999	50.8	31.8	3,049	1,494
$15,000-$24,999	45.0		2,683	
$25,000 and over	43.0	33.1	2,585	1,489

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 8A, Sources and Structure of Family Income, table 9; and 1960 Census of Population, Vol. II, 4C, Sources and Structure of Family Income, table 17.

Incomes of both husbands and wives rose during the 1960's, and the increase for the wives was at a faster rate but smaller in amount than that for the husbands (table 5.13). Husbands with income in husband-wife families in 1969 had a median income of $7,992, and the wives with income had a median of $2,618, or 33 percent as much as the husbands. For married couples in 1959, the corresponding figures were $4,873 for the husband and $1,424, or 29 percent as much, for the wife. Thus, during the 1960's, the median income of the husbands rose about 69 percent while that of the wives rose about 84 percent.

Wives were more likely to receive income (mostly from earnings) if the income of the husband was below the median for all husbands. In fact, in both 1969 and 1959, the general pattern was for the proportion of wives with income to diminish as the income of the husband increased. These facts suggest that wives are more inclined to become earners as the need to have income to supplement that of the husband increases.

In both 1969 and 1959, wives had the highest median income if the income of the husband was in the middle range. Many

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husbands with low income have limited skills or ability; some are new workers, whereas others are poorly educated workers or retired persons. The wives of many of these persons likewise have limitations on their ability to earn or are retired. On the other hand, more of the husbands with relatively high incomes probably have wives who are quite capable of earning money at a job away from home.

Table 5.14 Selected Characteristics of the Chief Income Recipient in Husband-Wife Families: United States, 1970

Numbers in thousands

Subject	Total		Relationship of chief income recipient to head of family			
	Number	Percent	Family head[1]	Wife of head	Child of head	Other member
All husband-wife families	44,017	X	39,640	3,236	911	229
Percent	X	100.0	90.1	7.4	2.1	.5
Race of head						
White	40,274	100.0	90.6	7.0	2.0	.4
Negro	3,296	100.0	84.2	11.1	3.4	1.3
Other	447	100.0	85.7	9.8	3.3	1.3
Median income of head dol.	7,437	X	8,455	5,305	6,096	6,050
Head not chief income recipient	4,376	100.0	X	100.0	100.0	100.0
Income of chief income recipient minus that of head:						
$1-$999	1,242	28.4	X	30.0	22.7	27.6
$1,000-$2,999	1,625	37.1	X	37.7	35.6	35.9
$3,000 and over	1,510	34.5	X	32.3	41.8	36.5

X Not applicable.
[1]Includes the less than 1 percent of families reporting no income in 1969.

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 4B, Persons by Family Characteristics, table 14.

Wives with more income than their husbands—A small proportion of white wives (7 percent) received more income than their husbands in 1969 (table 5.14). The proportion was somewhat higher for Negro wives (11 percent) and wives of other races (10 percent). Although the median income of all husbands who were chief income recipients was $8,455, the corresponding figure for husbands in families in which the wife was the chief income recipient was considerably smaller ($5,305). In most of the families (two-thirds) in which the wife received more money than the husband, the wife received a relatively small amount (under $3,000) more than the husband. Some of the wives with more income than their husbands were providing for the family while the husband was still attending school, was ill, was unemployed, or was retired. However, the proportion of wives with more income than their

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husbands has risen from 5.7 percent in 1959 to 7.4 percent in 1969 and may be expected to rise still higher in future years if employment opportunities for women continue to improve and if husbands accept this developing trend.

Family income by occupation of husband—The amount of income contributed by secondary earners tends to be large in relation to total family income if the husband is in an occupation which provides relatively small earnings (table 5.15). Thus, 40 percent or more of total family income in 1969 was contributed by secondary earners in families with heads in four nonfarm occupation groups (clerical workers, operatives, service workers, and nonfarm laborers) and in the two farm occupation groups in which the head of the family had below-average income. Moreover, 60 percent of all husband-wife families had secondary earners in 1969, but 62 to 66 percent of the families with the head employed as a clerical or service worker or as an operative (including factory workers) had secondary earners. These are types of work in which large numbers of women are employed and where young adults meet each other at work before they marry. By contrast, only 45

Table 5.15 Median Income in 1969 of Husband-Wife Families by Number of Earners, and Percent of Families With Two or More Earners, by Major Occupation Group of Head: United States, 1970

Major occupation group of head	Median income of family			Percent with 2 or more earners
	Head only earner (dol.)	2 or more earners (dol.)	Ratio: 2 or more / Head only	
All husband-wife families with the head an earner	9,090	12,226	1.34	59.7
Professional, technical, and kindred workers	13,287	14,899	1.12	58.0
Managers and administrators, except farm	13,097	15,290	1.17	58.0
Salesworkers	10,921	13,511	1.24	60.1
Clerical and kindred workers	8,817	12,316	1.40	65.7
Craftsmen and kindred workers	9,015	12,210	1.35	59.6
Operatives, including transport	7,753	10,947	1.41	61.8
Laborers, except farm	6,251	9,265	1.48	60.3
Farmers and farm managers	5,486	7,919	1.44	44.6
Farm laborers and farm foremen	3,733	5,930	1.59	57.0
Service workers, including private household	6,773	10,408	1.54	63.6

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 8A, Sources and Structure of Family Income, tables 1 and 2.

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percent of the farmers and farm managers had secondary earners, but many of the other farm family heads benefited from the output of their wives and/or children as unpaid family workers who obtained no outside earnings.

Race of husband—Evidence that the gap persists between the incomes of white and Negro husband-wife families is presented in table 5.16. Although the absolute amount of the gap increased by $600 during the 1960's, the relative gap narrowed. Specifically, the median family income of Negro families was only 59 percent as large as the corresponding income of white families in 1959 but rose to 70 percent by 1969. The improvement of this ratio was greater among families with two or more earners than among those with one earner. In both 1969 and 1959 about 10 percent more Negro than white families had multiple (two or more) earners, and both racial groups experienced a 10-percentage point increase during the decade in the proportion of families with multiple earners.

Table 5.16 **Percent of Earners and Median Family Income by Number of Earners, for Husband-Wife Families With Earners, by Race of Head: United States, 1969 and 1959**

Number of earners and year	Percent of earners		Median family income (dollars)		
	White	Negro[1]	White	Negro[1]	Ratio: Negro[1] / White
1969					
All husband-wife families with earners	100.0	100.0	11,072	7,783	.70
1 earner	42.6	33.4	9,113	5,546	.61
2 earners	44.3	50.7	11,691	8,799	.75
3 or more earners	13.1	15.9	15,489	11,513	.74
1959					
All husband-wife families with earners	100.0	100.0	6,523	3,832	.59
1 earner	52.8	42.9	5,784	3,158	.55
2 or more earners	47.2	57.1	7,138	4,562	.64

[1]All races other than white for 1959, about 92 percent of whom were Negroes.

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 8A, Sources and Structure of Family Income, table 1; and 1960 Census of Population, Vol. II, 4C, Sources and Structure of Family Income, table 1.

A small proportion of families reported no earners. This amounted to 7 percent of all husband-wife families in 1969 and 6 percent in 1959 for both races. These families include newly married as well as elderly couples and families with income from welfare benefits or investments only.

Age and education of husband—For husbands who were old enough to have completed their education (25 years old and over), the amount of family income in 1969 was positively correlated with amount of education for those in each age group (table 5.17). However, the peak family income occurred at an earlier age for husbands who had not finished 4 or more years of college (35 to 54 years) than for those who had done so (55 to 64 years). Moreover, the decline in family income as the husband advanced into old age (65 years and over) was at a lower rate as the amount of education increased. Median family incomes were about one-half as large for families with husbands in the oldest group as for those with husbands in the next to oldest group, with the decline somewhat less at the upper educational levels. Husbands 65 and over who had completed 4 years or more of college were more likely to have a larger proportion of their income from investments rather than from transfer payments (pensions, social security, etc.).

The range of median family incomes among the age-by-education groups was very wide. The most extreme difference was that between families with husbands 55 to 64 years of age with 5 or more years of college ($21,593) and families with husbands 65 years old and over with less than a full elementary school education ($3,665). The high figure cited is nearly six times as large as the low figure. From age 25 to age 54, the husbands with a college degree had median family incomes about two to three times as large as those with a minimal education.

In general, the higher the education of the husband, the more nearly the family income of Negroes equaled that of whites. The median family income of Negro husbands in 1969 ranged from 79 percent of that for white husbands where the husband started but did not complete high school to 96 percent of that for white husbands where the husband had completed 5 or more years of college.

Families with a female head—The discussion in this section has featured the incomes of husband-wife families which constitute six out of every seven families in the United States. Families with a female head comprise most of the remaining families. The proportion of all families that had a female head rose from 8 to 9 percent

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Table 5.17 **Median Income in 1969 of Husband-Wife Families, by Years of School Completed and Age of Head: United States. 1970**

(Dollars)

Years of school completed by head	All ages	Age of head				
		14-24 years	25-34 years	35-54 years	55-64 years	65 years and over
All husband-wife families	10,233	7,114	10,095	12,260	10,467	4,919
Elementary:						
0-7 years	6,177	5,050	6,769	7,992	7,116	3,665
8 years	8,014	5,736	7,863	9,819	8,945	4,534
High school:						
1-3 years	9,578	6,339	8,769	11,189	10,240	5,465
4 years	10,820	7,599	9,866	12,349	11,943	6,542
College:						
1-3 years	11,929	7,138	11,159	13,949	13,840	7,621
4 years	14,516	7,746	12,598	17,841	18,148	10,894
5 or more	16,703	7,990	13,006	19,672	21,593	13,126

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. II, 8A, Sources and Structure of Family Income, table 3.

among whites in the 1960's and from 21 to 27 percent among Negroes. Their median income in both 1969 and 1959 was only a little over one-half as large as that of all families. Among white families with a female head, the median income rose from $3,532 in 1959 to $5,636 in 1969, and among families with a female head of Negro or other race the median income rose from $1,742 to $3,451. Here again, the absolute increase was greater for white families, but the proportional increase was much greater for families with a head of Negro or other race.

Families versus unrelated individuals—Various measures of average income are presented in table 5.18 for families, for the noninstitutional population not in families ("unrelated individuals"), and for the total population. The measures for families by race refer to the race of the head. "Spanish heritage" has somewhat different meanings in three different parts of the United States but relates largely to members of families who used the Spanish language in their home when they were children; in New York, New Jersey, and Pennsylvania it relates to persons of Puerto Rican birth or parentage.

Of special interest are the measures of income per family member or per person and those on percent of families below the poverty level, because these measures take into account differences in the number of persons in the family who depend on the family's income for their livelihood. Thus, the smaller average number of

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Table 5.18 **Measures of Average Income and Poverty Status in 1969 for Families, Unrelated Individuals, and Total Population by Race and Spanish Heritage: United States, 1970**

Measure	Total	White	Negro	Spanish heritage
FAMILIES				
Median income.....dol..	9,586	9,957	6,063	7,533
Mean income.....dol..	10,930	11,348	7,047	8,550
Mean income per family member....dol..	3,058	3,237	1,697	2,000
Percent receiving public assistance income.....	5.3	4.0	17.6	12.6
Percent below poverty level:				
All families.....	10.7	8.6	29.9	20.4
Families with female head.....	32.5	25.8	53.1	50.0
Families with head employed year-round in 1969.....	3.9	3.1	14.3	9.0
UNRELATED INDIVIDUALS				
Median income.....dol..	2,488	2,567	1,936	2,381
Mean income.....dol..	3,865	4,004	2,867	3,309
ercent receiving public assistance income.....	7.1	5.9	15.6	11.7
ercent below poverty level.....	37.1	35.5	47.7	39.8
PERSONS				
er capita income of persons.....dol..	3,119	3,294	1,801	2,057
ercent below poverty level:				
All persons.....	13.7	10.9	34.9	23.4
Related children under 18.....	15.2	10.7	42.1	28.3

Source: U.S. Bureau of the Census, 1970 Census of Population, Vol. I, .S. Summary, tables 95, 245, 250, 251,259,260, and 262.

persons per family among white persons than among Negroes or persons of Spanish heritage tends to make the ethnic differences proportionately greater when measured in terms of income per family member than when measured in terms of median or mean family income.

The relatively high percentages of unrelated individuals who were below the poverty level are attributable in large measure to the preponderance of elderly persons in this category—especially older widowed and divorced persons. Their median age in 1970 was 57 years, as compared with 46 years for family heads and 28 years for the total population. The final line in table 5.18 under "Families" shows that 4 percent of all families with the head employed year-round (constituting 1.3 million families) were nonetheless below the poverty level.

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The social and economic implications of the demographic changes in past years, described in previous chapters of this monograph, can be seen more clearly when the various demographic series are projected into the future. For example, information on the expected future trend of the total population and its age-sex distribution is directly useful in anticipating requirements for food, health services, recreation, and other consumer goods and services. From these basic population figures various types of specialized projections may be derived – regional distribution of the population, the number of households, the population in school, and the labor force; these specialized projections have important implications in themselves and also for the provision of essential social services and public and private facilities.

Projections of the geographic distribution of the population offer an indication of the implications of recent trends in internal migration for the future regional distribution of the population. These figures may be useful in the analysis of probable future types of change in population distribution as well as in determining the regional requirements for the distribution of goods, services, and facilities.

Projections of households and families are basic determinants of future requirements for housing units and future demand for consumer durable goods purchased by households as units. Projections of school enrollment are a necessary ingredient for preparing projections of requirements for teachers, school buildings, and classrooms. Projections of educational attainment are useful in appraising future cultural changes and have implications for anticipating the quality and the skill of the future labor force. Projections of the labor force are of importance in determining the future demand for jobs and the future supply of workers. Such projections may be extended to reflect future changes in the outlook and demand for workers in various occupations as, for example, teachers and health workers. The labor force projections are also used to study the future trend in the ratio of the number of dependents (persons not working) to the number of workers.

U.S. Population and Regional Distribution

U.S. population—Projections of the total population of the United States, including Armed Forces overseas, for the year 2000 range from 251 million (Series F) to 300 million (Series C) (table 6.1). Series C assumes that women who will enter the childbearing ages in future years will have an average of 2.8 births per woman, whereas Series F assumes that these women will average 1.8 births per woman. Thus, a difference of one birth per woman for future childbearing cohorts means a difference of about 50 million in the size of the national population by the year 2000. Series D and Series E, which assume averages of 2.5 births per woman and 2.1 births per woman, respectively, give intermediate populations of 286 million and 264 million. (Series A and B are no longer featured, because their basic assumptions are considered to yield unrealistically high projections.) All series use the same assumptions for mortality and immigration. Projected survival rates are based on mortality levels in 1971 and assume only slight declines in death rates in future years. The assumption on international migration is that there will be a net immigration of 400,000 per year which, together with the children born to the immigrants but omitting the deaths of the immigrants and their children, would amount to approximately one-fourth of the population growth between now and the year 2000.

All four series—C, D, E, and F—project a continued increase in population to the year 2000. The average annual rate of growth would range between 0.6 percent according to Series F and 1.3

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percent according to Series C. All four series show an increase (after some initial declines) in the projected number of births and in the crude birth rate into the early 1980's. The rapid increase expected in the number of females in the prime childbearing ages will more than offset the decline in the average number of births per woman assumed in Series F.

Table 6.1 Total Population: United States, 1970 to 2000

(Total population including Armed Forces overseas)

Year (July 1)	Series C	Series D	Series E	Series F
Estimates (thous.):				
1970	204,879			
1973	210,404			
Projections (thous.):				
1975	215,872	215,324	213,925	213,378
1980	230,955	228,676	224,132	221,848
1985	248,711	243,935	235,701	230,913
1990	266,238	258,692	246,639	239,084
1995	282,766	272,211	256,015	245,591
2000	300,406	285,969	264,430	250,686
Percent increase:				
1973-1975	2.6	2.3	1.7	1.4
1975-1980	7.0	6.2	4.8	4.0
1980-1985	7.7	6.7	5.2	4.1
1985-1990	7.0	6.0	4.6	3.5
1990-1995	6.2	5.2	3.8	2.7
1995-2000	6.2	5.1	3.3	2.1
Percent increase since 1973:				
1975	2.6	2.3	1.7	1.4
1980	9.8	8.7	6.5	5.4
1985	18.2	15.9	12.0	9.7
1990	26.5	23.0	17.2	13.6
1995	34.4	29.4	21.7	16.7
2000	42.8	35.9	25.7	19.1

Source: U.S. Bureau of the Census, Current Population Reports, "Estimates of the Population of the United States, by Age and Sex: April 1, 1970 to July 1, 1972," Series P-25, No. 490; and ibid., "Projections of the Population of the United States, by Age and Sex: 1972 to 2020," Series P-25, No. 493; and ibid., "Estimates of the Population of the United States to August 1, 1973," Series P-25, No. 506.

The increase in total population from 1973 to 2000 is expected to range between 19 percent (Series F) and 43 percent (Series C). Since the difference in population size results from the difference in assumed fertility, the presentation of alternative population projections is restricted to the population born during the projection period, 1973 to 2000, that is, to persons under 28 years old in the year 2000, under 18 in the year 1990, etc.

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Regional distribution—The projections of the regional distribution of the U.S. population represent essentially the implications of projected State fertility figures adjusted to the national fertility level and of projected State trends in internal migration. Two series of projections are shown in table 6.2, differentiated by the fertility assumptions, C or E, which they incorporate. Both series assume a continuation to 1990 of the gross migration trends observed between 1960 and 1970. Only a single assumption relating to mortality and net immigration is employed.

Table 6.2 Total Population of Regions and Divisions: United States, 1972 to 1990

(Numbers in thousands. As of July 1. Excludes Armed Forces overseas)

Regions and divisions	Series I-C			Series I-E		
	1972	1980	1990	1972	1980	1990
United States	208,230	232,960	268,883	208,230	226,934	250,630
Regions:						
Northeast	49,726	54,833	62,144	49,726	53,199	58,152
North Central	57,410	63,762	72,831	57,410	62,059	67,741
South	65,059	71,709	82,438	65,059	69,927	76,784
West	36,036	42,571	51,471	36,036	41,449	47,952
Divisions:						
New England	12,105	13,600	15,735	12,105	13,252	14,682
Middle Atlantic	37,621	41,233	46,409	37,621	40,246	43,470
East North Central	40,793	45,906	52,891	40,793	44,674	49,186
West North Central	16,617	17,856	19,940	16,617	17,385	18,555
South Atlantic	31,921	35,769	41,604	31,921	34,860	38,817
East South Central	13,156	13,794	15,130	13,156	13,440	14,100
West South Central	19,982	22,237	25,704	19,982	21,627	23,867
Mountain	8,880	9,903	11,768	8,880	9,617	10,894
Pacific	27,156	32,669	39,703	27,156	31,832	37,059

Source: U.S. Bureau of the Census, Current Population Reports, "Estimates of the Population of States: July 1, 1972 and 1973," Series P-25, No. 508; and ibid., "Preliminary Projections of the Population of States: 1975 to 1990," Series P-25, No. 477

Considering the four broad regions first, the West stands out as being likely to show a much more rapid rate of increase than the Northeast, North Central, or South and, hence, as containing a larger and larger proportion of the national population. The projections imply that even in 1990, however, less than one-fifth of the population will live in the West, as compared with nearly one-quarter or more in each of the other regions. Considering the nine geographic divisions, which represent subdivisions of the four regions, the Pacific Division in the West region will show the most rapid gain between 1972 and 1990 (46 percent according to Series I-C), and the East South Central Division in the South region will show the least rapid increase (15 percent). The Pacific Division is expected to be the fourth most populous division in 1990 as in 1972 but, according to the projections, the gap between the

proportion of the population in the East North Central Division, the largest division, and the proportion in the Pacific Division will be substantially narrowed in this period. The proportions of the population in the East South Central and Mountain Divisions are expected to remain the smallest.

Age and Sex Compostion

Because of sharp fluctuations in birth rates and births in past years, the population at the different ages will grow at quite different rates during any particular future period, and the growth rates for some age groups will fluctuate sharply from one future period to another. These variations would occur even if birth rates and the number of births were to begin leveling off in the near future. Table 6.3 shows projected population and projected percent changes for selected broad "functional" age groups for the period 1972 to 1990 (Series C and F). The percent changes differ only for ages under 18 from one series to another in this period. The wide range within which the future number of births may reasonably be expected to vary is apparent from the fact that the projections imply that between 1972 and 1990 the population under 18 would increase by 30 percent under Series C and decrease by 9 percent under Series F.

The population 18 to 24 years old ("youth") is very likely to show a "net" decline (4 percent) between 1972 and 1990, but in the interim there will be radical fluctuations in the growth rate. Between 1972 and 1980 the number of youth will increase by 13 percent, but between 1980 and 1990 it will decline by 15 percent. The growth rate for the age group 25 to 44 will be quite high and less variable—24 percent in the first period and 26 percent in the second. The number of older adults of working age will grow very little in the period 1972 to 1990, whereas the aged population will rise by about one-third. This large rise in the number of persons over 65 is due to the (past) general rise in the number of births, particularly up to the early 1920's, the decline in age-specific death rates, and the heavy volume of immigration, especially prior to World War I. After 1990 the growth rate of the aged population is almost certain to fall off sharply for a few decades because of the decline in the number of births after 1920.

These variations in growth rates by age will result in marked shifts in age distribution between 1972 and 1990 (table 6.3 and figure 6.1). The age structure of the population in the year 1990

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will be strongly influenced by future fertility patterns. Under Series C, the series with the highest fertility, 34 percent of the population would be under 18 in 1990 and the median age would be 30 years. Under Series F, the series with the subreplacement fertility, 26 percent of the population would be under 18 and the median age would be 33 years; the latter figure would imply a sharp rise in the median age over its present level of 28 years.

Table 6.3 Population Changes by Broad Age Groups: United States, 1972 to 1990

(As of July 1. Total population including Armed Forces overseas)

Age	Series C			Series F		
	1972	1980	1990	1972	1980	1990
POPULATION (THOS.)						
All ages	208,837	230,955	266,238	208,837	221,818	239,084
Under 5 years	17,242	23,119	27,119	17,242	16,827	17,752
5-17 years	51,822	48,250	62,625	51,822	45,766	44,868
18-24 years	26,005	29,382	25,029	26,005	29,382	25,029
25-34 years	27,353	36,962	41,791	27,353	36,962	41,791
35-44 years	22,773	25,370	36,902	22,773	25,370	36,902
45-54 years	23,591	22,406	24,617	23,591	22,406	24,617
55-64 years	19,104	21,083	20,357	19,104	21,083	20,357
65 and over	20,948	24,052	27,768	20,948	24,052	27,768
Median age	28.1	28.7	29.5	28.1	29.8	32.7
	1972-90	1972-80	1980-90	1972-90	1972-80	1980-90
PERCENT CHANGE						
All ages	27.5	10.6	15.3	14.5	6.2	7.8
Under 5 years	57.3	36.0	15.8	3.0	-2.4	5.5
5-17 years	20.8	-6.9	29.8	-13.4	-11.7	-2.0
18-24 years	-3.8	13.0	-14.8	-3.8	13.0	-14.8
25-34 years	52.8	35.1	13.1	52.8	35.1	13.1
35-44 years	62.0	11.4	45.5	62.0	11.4	45.5
45-54 years	4.3	-5.0	9.9	4.3	-5.0	9.9
55-64 years	6.6	10.4	-3.4	6.6	10.4	-3.4
65 and over	32.6	14.8	15.4	32.6	14.8	15.4
	1972	1980	1990	1972	1980	1990
PERCENT DISTRIBUTION						
All ages	100.0	100.0	100.0	100.0	100.0	100.0
Under 5 years	8.3	10.2	10.2	8.3	7.6	7.4
5-17 years	24.8	20.9	23.5	24.8	20.6	18.8
18-24 years	12.5	12.7	9.4	12.5	13.2	10.5
25-34 years	13.1	16.0	15.7	13.1	16.7	17.5
35-44 years	10.9	11.0	13.9	10.9	11.4	15.4
45-54 years	11.3	9.7	9.2	11.3	10.1	10.3
55-64 years	9.1	9.1	7.6	9.1	9.5	8.5
65 and over	10.0	10.4	10.4	10.0	10.8	11.6

Source: U.S. Bureau of the Census, Current Population Reports, "Estimates of the Population of the United States, by Age and Sex: April 1, 1970 to July 1, 1972," Series P-25, No. 490; and ibid, "Projections of the Population of the United States, by Age and Sex: 1972 to 2020," Series P-25, No. 493.

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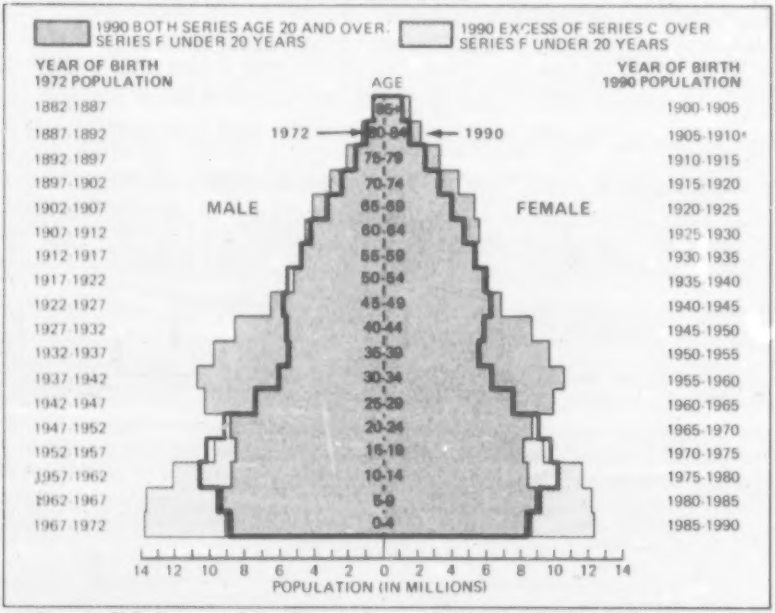
Figure 6.1 Population by Age and Sex: United States, 1972 and 1990



Source: U.S. Bureau of the Census, **Current Population Reports**, "Estimates of the Population of the United States, by Age and Sex: April 1, 1970 to July 1, 1972," Series P-25, No. 490; ibid., "Projections of the Population of the United States, by Age and Sex: 1972 to 2020," Series P-25, No. 493; and Census Bureau records.

There will be rises in the proportion of the population who will be "younger adults" (18 to 44 years–for women, the main reproductive ages) and decreases in the proportion who will be "older adults of productive age" (45 to 64 years). By 1990, depending on future fertility levels, between 39 percent and 43 percent of all persons are likely to fall in the young adult ages, as compared with 36 percent now. At the same time, the proportion in the older adult productive ages may be expected to decline from 20 percent to between 17 percent and 19 percent. The historical rise in the proportion of aged persons (65 years old and over) is very likely to continue for some time, with the proportion increasing from 10.0 percent in 1972 to between 10.4 percent and 11.6 percent in 1990.

Households and Families

Two series of household and family projections to 1990 are shown in table 6.4. These differ in their assumptions as to the rates

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of change in the age-specific proportions of persons in each marital category who are heads of households or families. In general, Series 1 assumes that future annual rates of change in the proportions of the ever-married and single population who will be heads will continue the rates of change between 1957 and 1969. Series 2 assumes annual rates of change one-half as great in the proportions of the ever-married and single population who will be heads in future years as in Series 1.

Table 6.4 Households, by Type and Age of Head, and Families: United States, 1970 to 1990

(Numbers in thousands)

Year and series	Households						All families[1]
	Total	Husband-wife	Age of head				
			Under 35 years	35-44 years	45-64 years	65 and over	
Estimates (March 1):							
1970	63,401	44,728	16,053	11,810	23,040	12,500	51,586
1973	68,251	46,297	19,039	11,721	24,017	13,473	54,373
Projections (July 1):							
Series 1: 1980	77,296	53,433	24,301	13,145	24,280	15,569	61,290
1985	84,213	57,955	26,524	16,296	24,315	17,078	66,280
1990	90,057	61,822	26,819	19,402	25,127	18,709	70,308
Series 2: 1980	76,063	52,980	23,577	13,095	24,282	15,109	61,087
1985	82,421	57,189	25,448	16,215	24,352	16,406	65,920
1990	87,823	60,700	25,485	19,278	25,232	17,827	69,997
Percent increase since 1973:							
Series 1: 1980	13.3	15.4	27.6	12.1	1.1	15.6	12.7
1985	23.4	25.2	39.3	39.0	1.2	26.8	21.9
1990	31.9	37.5	40.9	65.5	4.6	38.9	29.7
Series 2: 1980	11.4	14.4	23.8	11.7	1.1	12.1	12.3
1985	20.8	23.5	33.7	38.3	1.4	21.8	21.2
1990	28.7	31.1	33.9	64.5	5.1	32.3	28.7
Percent distribution:							
1970	100.0	70.5	25.3	18.6	36.3	19.7	(X)
1973	100.0	67.8	27.9	17.2	35.2	19.7	(X)
Series 1: 1980	100.0	69.1	31.4	17.0	31.4	20.1	(X)
1985	100.0	68.8	31.5	19.4	28.9	20.3	(X)
1990	100.0	68.6	29.8	21.5	27.9	20.8	(X)
Series 2: 1980	100.0	69.7	31.0	17.2	31.9	19.9	(X)
1985	100.0	69.4	30.9	19.7	29.5	19.9	(X)
1990	100.0	69.1	29.0	22.0	28.7	20.3	(X)

X Not applicable.

[1]Includes primary families and secondary families.

Source: U.S. Bureau of the Census, Current Population Reports, "Demographic Projections for the United States" (February 1972), Series P-25, No. 476; ibid., "Households and Families, by Type: March 1973," Series P-20, No. 251; ibid., "Households and Family Characteristics: March 1973," Series P-20, No. 258; and Census Bureau records.

Changes in attitudes relating to the disposition of persons to marry, to divorce, and to pursue careers early in adulthood which allow them to maintain households independent of their parental family are some of the key factors behind changes in household

living arrangements. Another important factor is the increase in the number of older people who live alone after their marriage is dissolved.

Some of the changes in living arrangements have been substantial in the last few years, after the projections shown here were developed. For example, the total number of households in the United States has increased very rapidly in recent years, from 63 million in 1970 to 68 million in 1973 (table 6.4). Husband-wife households constituted three-fourths of households in 1970 but accounted for only one-third of the increase in the number of households between 1970 and 1973. At the same time, the number of households headed by women constituted only one-fifth of the households in 1970 but accounted for about two-fifths of the increase in the number of households during the 3-year period. The increase in households with a man as head and no wife present has also been disproportionately large. Even if the trend of the 1960's were to continue, as the projections assume, households other than husband-wife households would continue to account for an increasing proportion of the growth in the number of households. This distribution of growth can be attributed to such factors as the increase in the number of young persons who leave their parental homes to set up their own households in "nonfamily" living arrangements, the increase in the number of divorced, separated, or single mothers with separate dwellings, and the increase in the number of elderly persons who are able to maintain their own households while living apart from any relatives.

Although the recent decline in the birth rate, starting in the late 1950's and continuing virtually without interruption to the present, implies slower population growth in the future, the effect of the decline to date on the number of households will not be evident during the 1970's. These changes in the birth rate will begin to have a substantial impact on the number of households in the early 1980's, when persons born after 1960 become a substantial proportion of those who are setting up their own households.

Marriages recently have been occurring at a rate of about 2 million annually, but many more than 1 million marriages are dissolved annually by death or divorce. As a result, the increase in the number of husband-wife households has amounted to somewhat less than 1 million per year. According to the most recent projections, the prospects are that their number will continue to increase at about the same pace for the next two decades. The number of husband-wife households whose heads are relatively

young will grow very rapidly during the 1970's, as persons born in the 1950's, when birth rates were high, are establishing households. Since their families will still be incomplete, and since young families typically rent apartments rather than buy houses, there should be a relatively great demand for apartments in this period. By contrast, in the 1970's and 1980's, growth of households headed by persons born in the 1930's and early 1940's (who will be in their thirties to fifties in the 1980's) should be much smaller.

The number of marriages of persons under 30 years old should be relatively high for more than a decade. It should then decrease somewhat and level off during the 1980's, stabilizing after the relatively large birth cohorts of the late 1950's and early 1960's pass through the prime marrying ages. This stabilization, together with the lower birth expectations among young couples today, may portend a more stable demand for housing units sometime after 1980 on the part of husband-wife families. A possible effect of the factors discussed above could be a continuing demand for smaller housing units, both apartments and houses, than for those demanded at the present time.

School Enrollment and Educational Attainment

School enrollment—The projections of school enrollment presented in table 6.5 were prepared during 1970 before the substantial decline in fertility which occurred in the early 1970's could be taken into account. Nonetheless, it is certain that the number of pupils enrolled in elementary school will decline during the 1970's, particularly during the last half of the decade, primarily as a result of the recent fall in the birth rate. This decline, not shown in table 6.5, may amount to 11 percent at one time or another during the decade. Enrollment below the college level is likely to increase again during the 1980's, when the children of women born in the high birth rate years of the late 1950's and early 1960's are 6 to 16 years of age.

Changes in birth rates, and not changes in school enrollment rates, essentially determine variations in enrollment in elementary schools since the enforcement of compulsory attendance laws causes enrollment to be nearly 100 percent at that level, where the children are usually under 14 years of age (table 6.6). Fluctuations in enrollment rates account for a greater proportion of the variation in high school enrollment (generally persons 14 to 17), but the enrollment rate for this age group is already 93 percent. The

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number enrolled in high schools (grades 9 to 12) is expected to increase slightly until 1980, to drop between 1980 and 1985 to about the same level as in 1970 or lower, and then to rise well above the 1970 figure. Because of the very high level of enrollment rates, most of the projected increase in enrollment is due to population growth and only a small part is due to an increase in enrollment rates.

Table 6.5 School Enrollment for Persons 5 to 34 Years Old, by Level of School: United States, 1972 to 1990

(As of fall of year. Civilian noninstitutional population)

Year and series	Total enrolled	Elementary school	High school	College
Estimates (thous.):				
1970	58,804	36,676	14,715	7,413
1972	58,487	32,242	15,169	8,313
Projections (thous.):				
Series C-1: 1980	61,147	34,565	15,133	11,449
1985	68,403	42,026	14,523	11,854
1990	78,681	47,960	18,037	12,684
Series C-2: 1980	59,471	34,374	14,814	10,284
1985	66,042	41,719	14,117	10,207
1990	75,814	47,560	17,462	10,592
Series E-1: 1980	59,417	32,835	15,133	11,449
1985	62,300	36,075	14,372	11,854
1990	66,878	38,378	16,035	12,465
Series E-2: 1980	57,763	32,665	14,814	10,284
1985	59,997	35,824	13,966	10,207
1990	63,959	38,064	15,498	10,397
Percent change since 1972:				
Series C-1: 1980	4.5	7.2	-.2	37.7
1985	17.0	30.3	-4.3	42.6
1990	34.5	48.8	18.9	52.6
Series C-2: 1980	1.7	6.6	-2.3	23.7
1985	12.9	29.4	-6.9	22.8
1990	29.3	47.5	15.1	27.4
Series E-1: 1980	1.6	1.8	-.2	37.7
1985	6.5	11.9	-5.3	42.6
1990	14.3	19.0	5.7	49.9
Series E-2: 1980	-1.2	1.3	-2.3	23.7
1985	2.6	11.1	-7.9	22.8
1990	9.4	18.1	2.2	25.1

Source: U.S. Bureau of the Census, Current Population Reports, "Demographic Projections for the United States" (February 1972), Series P-25, No. 476; and ibid., "School Enrollment in the United States: 1972," Series P-20, No. 247.

The greatest increase in enrollment during the next decade is likely to be at the college level (generally persons 18 to 24 years

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old). If enrollment rates for persons of college age increase as rapidly between 1970 and 1980 as they did during the 1960's, overall college enrollment would increase by 54 percent in this decade, and there would be 4 million more college students in 1980 than in 1970. This increase in enrollment essentially reflects rises in enrollment rates rather than increases in population. However, recent evidence from the Current Population Survey, gathered after the projections shown here were prepared, suggests that the rapid increases in enrollment rates of the 1960's may not continue through the 1970's and that recent decreases in rates at the initial ages of college attendance for men may soon make the current projections obsolete. Even at the rates of enrollment prevailing in 1970, the number of college students would be 24 percent greater in 1980 than in 1972 and 23 percent greater in 1985 than in 1972, because of the expected increase in the population of college age.

Table 6.6 **Percent Enrolled in School by Age and Sex: United States, 1970 to 1990**

(As of October. Civilian noninstitutional population)

Age and sex	Estimates		Projections					
			Series 1			Series 2		
	1970	1972	1980	1985	1990	1980	1985	1990
MALE								
Total, 5-34 years	62.4	60.1	57.5	59.7	63.7	55.9	57.6	61.2
5-6 years	88.9	91.7	90.9	92.4	93.7	89.0	89.8	90.5
7-13 years	98.0	99.1	99.1	99.1	99.2	99.1	99.1	99.1
14-17 years	94.8	94.0	97.0	97.9	98.4	95.8	96.4	96.7
18-24 years	37.4	35.0	44.1	46.2	51.3	40.4	40.9	44.4
18-21 years	49.2	44.6	57.8	61.5	65.9	53.2	54.9	57.5
25-29 years	11.0	12.1	14.3	15.8	17.4	12.6	13.4	14.2
30-34 years	5.3	5.8	7.3	8.3	9.3	6.3	6.8	7.3
FEMALE								
Total, 5-34 years	55.5	53.8	50.4	52.9	57.4	49.0	51.1	55.2
5-6 years	90.2	92.2	92.5	93.9	95.1	90.6	91.3	92.0
7-13 years	99.4	99.3	99.6	99.6	99.7	99.5	99.5	99.6
14-17 years	93.3	92.6	95.6	96.7	97.4	94.3	95.1	95.5
18-24 years	23.0	23.7	28.4	30.1	34.6	25.4	25.9	28.9
18-21 years	32.8	34.2	40.1	43.2	47.5	36.2	37.6	40.3
25-29 years	4.3	5.3	6.3	7.3	8.2	5.3	5.8	6.3
30-34 years	3.1	3.6	4.6	5.3	6.1	3.9	4.2	4.6

Source: U.S. Bureau of the Census, Current Population Reports, "Projections of School and College Enrollment: 1971 to 2000," Series P-25 No. 473; and ibid., "School Enrollment in the United States: 1972," Series P-20, No. 247.

Future school and college enrollment patterns may show the effects of recent changes in attendance practices and in the demographic characteristics of students. If these recent developments persist, decisions will have to be made, for example, on the number of new 2-year colleges to be constructed, the need for dormitories for 4-year colleges, the requirements for teachers, etc.

Statistics from the Current Population Survey show that the number of undergraduates attending 2-year colleges has increased appreciably in the past few years. In the fall of 1972, 1.9 million students were attending 2-year colleges; these students represented 43 percent of all students enrolled in the first 2 years of college. In 1966, only 1 million students were attending 2-year colleges, and they accounted for only 31 percent of college freshmen and sophomores. The numbers enrolled imply an 83 percent increase in 6 years. Although this high rate of increase in enrollment in 2-year colleges will surely not continue for very long, some future increase may be expected.

The rise in enrollment in 2-year colleges has resulted in a slight increase in the median age of college students. The number of persons enrolled with ages above the typical ages of college attendance has been increasing for several years and is likely to continue into the future. Some of this increase is attributable to the return of Vietnam War veterans to college and some to the desire of working adults to improve their job skills and hence their chances for promotion. Another change in the characteristics of college students is an acceleration of the long-time decline in the proportion of male college students from 61 percent in 1966 to 57 percent in 1972. More importantly, the college student population seems likely to continue growing more rapidly than the total population during the next few decades, and this growth will have implications not only for the future size and characteristics of the labor force but also for other facets of social and economic life.

A decrease in the proportion of college students who live in dormitories and a rise in the proportion who maintain their own households are anticipated. These changes are in part a reflection of the increase in attendance at 2-year colleges, since such students largely reside in their parental homes or in their own houses or apartments. However, they also apply to some extent to upperclassmen and graduate students. Such changes have implications for future life styles as well as for the construction and housing industries.

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The fluctuations in enrollment at various school levels will result in fluctuations in the requirements for schools and teachers. Inasmuch as school buildings and teachers are specialized as to level, and at the higher grades by subject, the requirements for buildings and teachers will fluctuate sharply during the next few decades. Fewer classrooms and teachers will be needed at the elementary level as the decade progresses, assuming no major change in the teacher/pupil ratio. In the same period, requirements for personnel and facilities at the high school level will rise sharply during the mid-1970's and then fall again by 1980. The requirements for teachers and buildings at the high school level will probably continue to decrease through the early 1980's and then start to increase once again. Meantime, a resurgence of enrollees in elementary school seems likely during the 1980's. Requirements at the college level are expected to continue sharply upward through the 1970's and to slacken substantially during the 1980's.

Table 6.7 Distribution of Population by Years of School Completed: United States, 1970 to 1990

(As of March 1)

Subject	Estimates		Projections			
	1970	1973	1980		1990	
			Series 1	Series 2	Series 1	Series 2
POPULATION (THOUS.)						
25 years old and over	109,310	112,866	128,465	128,465	150,214	150,214
YEARS OF SCHOOL COMPLETED						
Percent distribution, 25 years old and over	100.0	100.0	100.0	100.0	100.0	100.0
Elementary:						
Under 5 years	5.3	4.5	3.2	3.2	1.8	1.8
5-7 years	9.1	8.0	6.0	6.1	3.7	3.7
8 years	13.4	11.4	9.1	9.1	5.8	5.9
High school:						
1-3 years	17.1	16.3	16.3	16.4	14.5	14.9
4 years	34.0	35.8	37.9	38.3	39.3	40.4
College:						
1-3 years	10.2	11.[illegible]	12.5	12.4	14.8	14.7
4 years	6.8	7.6	8.9	8.7	11.2	10.8
5 years or more	4.3	[illegible].0	6.2	5.8	8.9	7.7
Median years	12.2	12.3	12.4	12.4	12.6	12.6

Source: U.S. Bureau of the Census, Current Population Reports, "Educational Attainment: March 1970," Series P-20, No. 207; ibid., "Demographic Projections for the United States" (February 1972), Series P-25, No. 476; and ibid., "Educational Attainment: March 1973," Series P-20, forthcoming.

Educational attainment—The overall educational level of the American population will continue to increase, although the tempo

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of the increase will be relatively slow. Projections of educational attainment indicate an increase in the proportion of the adult population (25 years old and over) who will have completed a high school education; thus, two-fifths of the adult population in 1990 are expected to have completed exactly 4 years of high school, as compared with one-third in 1970 (table 6.7). In addition, the projections show a sharp decline in the proportion with only an elementary school education and a moderate decline in the proportion completing 1 to 3 years of high school. The projections imply that the proportion of Americans who will continue their education after they graduate from high school, that is, the proportion completing 1 or more years of college, will show the greatest increase, rising from about 21 percent in 1970 to around 27 percent in 1980 and 33 percent or more in 1990. However, the median years of school completed for the adult population, according to the projections, will increase only 0.2 of a year between 1970 and 1980 and 0.4 of a year between 1970 and 1990.

Labor Force, Economic Dependency, and Farm Population

Labor force—The total labor force of the United States is expected to rise by nearly one-fifth during the 1970's, from 85.9 million at the beginning of the decade to 101.8 million in 1980, according to projections prepared by the U.S. Bureau of Labor Statistics (table 6.8). The rate of growth is expected to decline to only 11 percent in the following decade. At this decelerated rate, the labor force is estimated to reach 112.6 million by 1990.

Table 6.8 Annual Average Labor Force by Age: United States, 1970 to 1990

(Includes all Armed Forces)

Age	Labor force (thous.)					Percent change	
	1970	1972	1980	1985	1990	1970-1980	1980-1990
Total, 16 and over.....	85,903	88,991	101,809	107,716	112,576	18.5	10.6
16-19 years.....	7,645	8,367	8,337	7,165	7,089	9.1	-15.0
20-24 years.....	12,271	13,132	15,444	15,019	13,230	25.9	-14.3
25-34 years.....	17,678	19,331	26,779	29,739	30,531	51.5	14.0
35-44 years.....	16,789	16,668	18,720	23,177	27,617	11.5	47.5
45-54 years.....	17,020	17,023	16,445	16,286	18,273	-3.4	11.1
55-64 years.....	11,280	11,365	12,787	12,929	12,310	13.4	-3.7
65 and over.....	3,220	3,107	3,297	3,401	3,526	2.4	6.9

Source: Denis F. Johnston, 1973, "The U.S. Labor Force: Projections to 1990," Special Labor Force Report 156, U.S. Bureau of Labor Statistics; and U.S. Bureau of Labor Statistics, 1973, Employment and Earnings, Vol. 19, No. 7.

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The projections assume no drastic changes in the propensity of the several population groups to seek work. They also assume a generally favorable demand situation, together with the absence of major wars or other major social or economic disturbances. Finally, the projections assume no major legal or social changes which would alter the conditions under which individuals choose to enter or remain out of the labor force or which would alter the prevailing definitions of the labor force, employment, or unemployment.

Table 6.9 Annual Average Labor Force Participation Rates, by Age and Sex: United States, 1970 to 1990

(Includes all Armed Forces)

Age and sex	Estimates		Projections		
	1970	1972	1980	1985	1990
MALE					
Total, 16 and over.....	79.2	79.7	78.0	78.3	78.4
16-19 years.....	57.5	59.9	56.0	55.5	55.4
20-24 years.....	85.1	85.9	83.0	82.5	82.1
25-34 years.....	95.0	95.9	94.6	94.4	94.4
35-44 years.....	95.7	96.5	95.1	94.9	94.7
45-54 years.....	92.9	93.3	91.9	91.7	91.5
55-64 years.....	81.5	80.5	79.1	78.1	77.5
65 and over.....	25.8	24.4	21.2	20.0	19.3
FEMALE					
Total, 16 and over.....	42.8	43.9	45.0	45.6	45.9
16-19 years.....	43.7	45.9	45.5	46.4	47.0
20-24 years.....	57.5	59.1	63.4	64.9	66.2
25-34 years.....	44.8	47.6	50.2	50.9	51.5
35-44 years.....	50.9	52.0	53.2	54.4	55.2
45-54 years.....	54.0	53.9	56.2	57.4	58.0
55-64 years.....	42.5	42.1	44.7	45.4	45.8
65 and over.....	9.2	9.3	8.6	8.5	8.3

Source: Denis F. Johnston, 1973, "The U.S. Labor Force: Projections to 1990," Special Labor Force Report 156, U.S. Bureau of Labor Statistics; and U.S. Bureau of Labor Statistics, 1973, Employment and Earnings, Vol. 19, No. 7.

Projected changes in the labor force are of necessity closely related to projected changes in the size and age composition of the population of working age. Projected changes in labor force participation rates (the percent of the population in the labor force) for specific age-sex groups are also significant (table 6.9), but their

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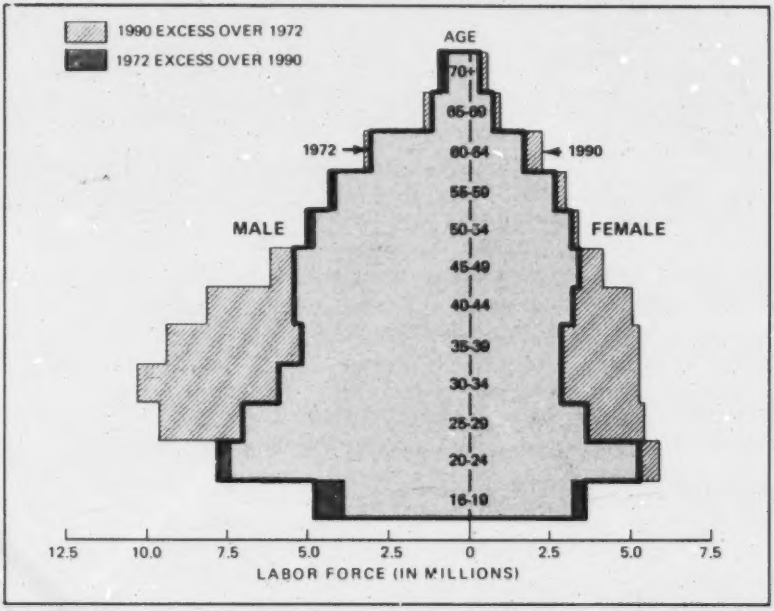
impact will be overshadowed by the effect of the projected population changes. Between 1970 and 1990, for example, 89 percent of the projected change in the male labor force and 68 percent of the projected change in the female labor force will result from population changes (figure 6.2). Only among men 65 and over and among women 20 to 24 and 45 to 54 will projected changes in worker rates have a greater effect on changes in the labor force than will changes in population. Recent and prospective variations in worker rates reflect the trend toward prolongation of schooling among youth (with consequent delay of entry into the labor force), toward earlier retirement as a result of the spread of pension programs in industry and government and of rules on mandatory retirement, and toward lower fertility rates, which affect the proclivity of women to seek work.

Figure 6.2 **Labor Force by Age and Sex: United States, 1972 and 1990**



Source: Denis F. Johnston, 1973, "The U.S. Labor Force: Projections to 1990," Special Labor Force Report 156, U.S. Bureau of Labor Statistics; and U.S. Bureau of Labor Statistics, 1973, Employment and Earnings, Vol. 19, No. 7.

The projected 1980 labor force differs markedly from the labor force of 1960 and 1970 in its composition by age and sex.

The median age of the labor force, which declined from 40 to 38 years during the 1960's, is expected to decline further during the present decade, reaching 35 years by 1980. The major factor in this decline will be the sharp rise in the number of young adult workers aged 25 to 34 years—from 17.7 million to 26.8 million—as the postwar "baby boom" cohorts move through the life cycle into the ages of maximum labor force participation. This age group, which made up one-fifth of the labor force in 1970, will make up over one-fourth by 1980, according to the projections used here.

In 1960, 32 percent of those in the labor force were women; by 1970 the proportion had risen to 37 percent (table 6.10). The projections indicate a continuing but small increase in the proportion of the female labor force to 39 percent in 1980. Two major reasons may be cited to explain the more modest growth projected for women workers during the present decade. First, the largest changes in the female population in the 1970's are projected in the age group 25 to 34 years; in this group the worker rate is lower than that of the age groups which had the largest population increases in the 1960's. Second, the unusually rapid increase in the worker rates of women during the past decade was associated with the precipitous decline in the birth rate. Worker rates for women tend to be higher if, on the average, women have two rather than three children; in fact, a two-child family is now becoming the characteristic size. If women have fewer children, more women will be available for work. However, the projections assume no further drastic decline in the birth rate. Accordingly, the worker rate for women 25 to 34 years old, which rose from 36 percent in 1960 to 45 percent in 1970, is projected to rise by only 5 percentage points during the current decade to 50 percent in 1980. Under conditions of a slowly expanding economy, the entry of great numbers of women into the labor force may make it more difficult for the marginal age and educational groups and the handicapped to secure jobs.

A large increase in the number of young adult workers is another salient feature of the prospective changes in the labor force during the remainder of the present decade. The teenage labor force, which increased from 5.2 million in 1960 to over 7.6 million in 1970, is expected to continue growing, but at a slower pace, and to reach a peak in the late 1970's. Thereafter, the size of this group may be expected to decline slowly, reaching 8.3 million in 1980. This development has important implications for the absorption of these new young workers into the country's economy. The slower

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pace of increase should enhance the effectiveness of measures designed to reduce the high unemployment rate among teenagers.

Table 6.10 Percent Distribution of the Annual Average Labor Force, by Age and Sex: United States, 1970 to 1990

(Includes all Armed Forces)

Age and sex	Estimates		Projections		
	1970	1972	1980	1985	1990
BOTH SEXES					
Total, 16 and over.....	100.0	100.0	100.0	100.0	100.0
16-24 years.....	23.2	24.2	23.4	20.6	18.0
25-54 years.....	59.9	59.6	60.8	64.2	67.9
55 years and over.....	16.9	16.3	15.8	15.2	14.1
MALE					
Total, 16 and over.....	63.3	62.6	61.5	61.3	61.2
16-24 years.....	13.7	14.1	13.3	11.6	10.0
25-54 years.....	38.7	38.1	38.6	40.6	42.8
55 years and over.....	10.8	10.3	9.6	9.1	8.4
FEMALE					
Total, 16 and over.....	36.7	37.4	38.5	38.7	38.8
16-24 years.....	9.5	10.0	10.1	9.0	8.0
25-54 years.....	21.2	21.5	22.3	23.6	25.1
55 years and over.....	6.1	6.0	6.2	6.1	5.7

Source: Denis F. Johnston, 1973, "The U.S. Labor Force: Projections to 1990," Special Labor Force Report 156, U.S. Bureau of Labor Statistics; and U.S. Bureau of Labor Statistics, 1973, Employment and Earnings, Vol. 19, No. 7.

The number of workers aged 20 to 24 is expected to continue to grow rapidly during the current decade (to 26 percent), but again at a much slower pace than during the 1960's. On the other hand, the group aged 25 to 34 will show a sharp increase in this decade (to 51 percent), as the large postwar cohorts move into this age group. The number of workers aged 35 to 44, which was about the same in 1970 as in 1960, is projected to increase by 12 percent during the current decade to 18.7 million in 1980. This substantial increase results from the fact that persons born between 1935 and 1945 will move into this age group and replace the smaller number born between 1925 and 1935.

The group aged 45 to 54, which generally includes a large proportion of persons at the peak of management and earnings, is projected to decline by nearly 600,000 during the present decade to 16.4 million workers in 1980. At the latter date, this group will consist essentially of the relatively small number of persons born between 1925 and 1935, which include some of the cohorts born during the economic depression of the 1930's.

The number of older workers (aged 55 and over) increased by about 13 percent during the 1960's and is expected to increase by an additional 11 percent during the 1970's. By 1980 the labor force in this age group will number about 16.1 million. Within the group, the number of workers aged 65 and over is expected to remain nearly constant during the 1970's at a little over 3 million. Although the total population 65 and over is expected to grow from 20.9 million in 1972 to over 24 million in 1980 (table 6.3), projected reductions in the labor force participation rates of this group yield a nearly constant number of elderly workers.

The outstanding feature of the projected change in the total labor force between 1980 and 1990 is the slower pace of growth—only 11 percent for the decade. The age group 35 to 44 will then replace the age group 25 to 34 as the group which will experience the major expansion. The former group is expected to grow by only 12 percent during the 1970's but by 48 percent during the 1980's. One manifestation of this shift is the estimated rise in the median age of the labor force from 35 years in 1980 to 37 years in 1990.

The number of young workers (16 to 24 years old) is expected to decline by 15 percent during the 1980's, from 23.8 million in 1980 to 20.3 million in 1990. The sex composition of this group in 1990 is expected to differ sharply from its sex composition in 1970, with nearly 500,000 fewer men and 900,000 more women. This change reflects the assumed continuation in both the downward trend in the worker rates of young men because of a continuing rise in high school and college enrollment, and the upward trend in employment—as well as in school enrollment—for young women.

The number of workers in the group 25 to 34 years old is expected to increase during the 1980's at a much slower pace than in the 1970's. A 14-percent increase in the decade will bring the size of the group up to 30.5 million by 1990. The long-run prospects

among workers 45 to 54 years old imply a reversal of the trend foreseen for the current decade. While there is expected to be a small decline in the present decade, the next decade should see a moderate gain. The labor force at ages 55 to 64 is expected to decline by nearly 50,000 per year on the average between 1980 and 1990; the smaller number of persons born in the 1925-35 period will be moving into the 55-to-64 age group to replace those born in the 1915-25 period. Finally, the outlook for the growth of the labor force aged 65 and over during the 1980's is for a slow but steady increase (7 percent), as the assumed continuing decline in the worker rates of this group is more than offset by the continued rise in the underlying population of this age.

The sex distribution of the projected labor force is not expected to change greatly in the 1980's. The proportion of women workers is expected to remain at about 39 percent in both 1980 and 1990. This stabilization reflects not merely the similarity of overall growth rates for males and females in the labor force between 1980 and 1990 (10 percent and 11 percent, respectively), but also similar patterns of change by age for the two sexes (substantial declines for young persons, substantial increases for persons 25 to 54, and small changes for persons 55 and over).

Economic dependency—Because the low level of fertility experienced in recent years is expected to continue with little change in the period under consideration, the projections of population and labor force imply a much lower ratio of dependents (persons of all ages not in the labor force) to workers in the next few decades than at present. In 1980, there may be 18 to 25 percent more dependents than workers, whereas in 1972 the excess was 35 percent. Ratios of dependents to workers for recent and future years are as follows:

1970	1.385
1972	1.347
1980 Series D	1.246
Series F	1.179
1985 Series D	1.265
Series F	1.144
1990 Series D	1.298
Series F	1.124

Farm population—Projections of the U.S. farm population have not been a part of the applications made of basic projections

by age and sex. As of 1970, 8.3 million persons lived on farms, representing only 4 percent of the total U.S. population. Unless an unexpected development should reverse the historic decline in farm population, the most likely prospect seems to be that the farm population will tend to stabilize not far from the current level. Nonagricultural job opportunities within commuting distance of persons living on farms have been retaining many residents in rural areas while their chief source of livelihood has shifted from farm work to nonfarm work (Beale, 1972, pp. 676-77). Meanwhile, millions of persons continue to express a preference for the rural way of life, particularly if a large city with urban amenities is located within a reasonable distance of their residence (Zuiches and Fuguitt, 1972).

Chapter VII. SUMMARY AND SOCIOECONOMIC IMPLICATIONS

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Population Growth

Fluctuating rate of population growth—The population of the United States has increased from 4 million in 1790 to 211 million at the beginning of 1974. During the first 75 years the growth rate averaged about 35 percent per decade; then it declined to an average of about 25 percent per decade for the next 50 years and to about 15 percent per decade since early in the 20th century. The moderate rate of population growth for the last 50 years as a whole, however, includes a period of slow increase during the 1930's, a period of rapid increase during the 1950's, and recently a period of slow increase during the late 1960's and early 1970's. These large fluctuations in the rate of population growth create a series of social and economic problems that have their root cause in the wide-ranging changes in the age distribution of the population.

In **Population and the American Future**, the U.S. Commission on Population Growth and the American Future (1972, Final report, p. 110) states that it is "highly desirable to avoid another baby boom" and that "no substantial economic or social benefit would derive from continued population growth beyond that made unavoidable by past demographic trends." One of the central recommendations of the Commission was stated in this context:

> Realizing that our population cannot grow indefinitely, and appreciating the advantages of moving now toward the stabilization of population, the Commission recommends that the nation welcome and plan for a stabilized population.

In discussing criteria for selecting reasonable approaches for eventually achieving the goal of approximately a stationary population, the report observes on page 111 that the number of births per family could be reduced to about two, on the average, by "varying combinations of nonmarriage or childlessness coexisting in a population with substantial percentages of couples who have more than two children," and it concludes as follows:

> We prefer, then, a course toward population stabilization which minimizes fluctuations in the number of births; minimizes further growth of population; minimizes the change required in reproductive habits and provides adequate time for such changes to be adopted; and maximizes variety and choice in life styles, while minimizing pressures for conformity.

Although recent fluctuations in the population growth of the country as a whole have been determined largely by changes in the number of births, they have from time to time been augmented or offset by changes in the other components of growth—deaths and net immigration. Thus, the depressed economic conditions of the 1930's were associated not only with low birth rates but also with negligible net immigration. However, the falling birth rates of the 1960's were partly offset by a relatively high level of immigration. Accordingly, during the last few years, immigration has accounted for about one-fifth of the growth in population, a much larger proportion of growth than had been the case for several decades. For example, in 1971, the net change in the population of the United States was 2 million, comprising the difference between the gain of nearly 3.6 million through births and 0.4 million through net civilian immigration and the loss of 1.9 million through deaths.

Variations in fertility—The average number of children has generally been larger among families in the lower social and economic groups. Birth rates have been relatively high among women who started childbearing during their teenage years and who continued childbearing into their upper thirties and early forties; among farm women and Negro women; among immigrant women from certain countries where birth rates were high and living standards relatively low; among women with less than a full high school education; among women who, through choice or lack of opportunity, do not have a history of working at a job outside the home; among women whose occupation—or whose husband's

occupation—is one which generally yields a relatively low income; and especially among women who have a combination of these characteristics, such as those who marry early, have a low economic status, and are engaged full-time in doing their own housework.

Within this general pattern of fertility differences, some particularly noteworthy variations deserve mention. For example, although the fertility of Negro women tends to be higher than that of white women, Negro women who are college graduates have lower fertility than their white counterparts. Moreover, women college graduates of Spanish origin in the United States (nearly all of whom are white) also have lower fertility than other white women with the same amount of education. Thus, the commitment to a small family size appears to be especially strong, on the average, among the well-educated minority groups.

In the United States, women generally have about one-half of their children within 5 years after marriage. However, both the number and the timing of births vary according to socioeconomic conditions and the availability of means to limit family size. These factors often reinforce each other, but sometimes they tend to offset each other. For example, the economic depression of the 1930's drove the birth rate quite low even without the contraceptive technology of the 1970's. Moreover, the birth rate in 1972 and 1973 would surely not have fallen so low if the contraceptive technology of the 1970's had not been available.

The timing of births of a given order (first, second, etc.) is affected by the prevailing attitudes (favoring large families or small families) at the time when the parents are deciding whether to have another child. Thus, women who were in their late teens and early twenties in 1960 were at the prime period of life for deciding whether to have the third or subsequent child during the 1960's and early 1970's when birth rates were dropping sharply.

About one-fifth of first-born children in the United States are delivered before their parents have been married 8 months (22 percent in 1968). About 10 percent of all children born in 1969 were born out of wedlock (5 percent of white children and 35 percent of black children); in 1950, only 4 percent of all children were born out of wedlock. These children are born to mothers predominantly from the lower income and educational levels; however, illegitimacy has risen sharply since 1950, even though income and educational levels have been rising during the same period.

The National Fertility Survey conducted in 1970 showed that among married couples with the wife under 45 years old, about 65 percent were using some method of contraception (Westoff, 1972). The most frequently used methods were the contraceptive pill (22 percent), the condom (9 percent), and sterilization of the husband (5 percent) or wife (6 percent). However, the proportion of wives who were using the intrauterine device (IUD) was gaining rapidly and the proportion using the diaphragm or the rhythm method was falling sharply. By limiting the number and planning the spacing of children, the health of women is generally improved, in particular by avoiding high order births and tending to keep births from occurring close together.

The historic decline in fertility, now approaching the replacement level, has generally occurred first in the middle and upper social and economic groups, among whom the women most often have the incentive and the opportunity to decide how much of their adulthood they wish to distribute between child-centered and other types of roles. In 1970, those who were employed outside the home during their thirties had a lower average number of children than those who were not employed—by about one-half child for white women and one child for Negro women. In relation to the income of the husband, the difference between the fertility of upper and lower economic groups was particularly large for Negro women, who had slightly less than three children where the husband had an income of $15,000 or more in 1969 and slightly less than five children where the husband had an income of less than $4,000. Moreover, Negro women in their upper thirties whose husbands were in the upper income group had borne fewer children on the average than their white counterparts. By contrast, the 1970 census shows that within the group consisting entirely of white couples of upper education and upper occupation level with the wife not in the labor force, there was a discernible pattern for the number of children born per family to increase as the family income increased. However, the more usual situation in the population at large is that the families with the largest number of children are the least able financially to provide adequately for their children's welfare.

Changes in mortality and immigration—Death rates in the United States dropped more rapidly during the first half of the 20th century than during more recent decades. Now that contagious diseases have been brought increasingly under control, more deaths occur among older members of the population, whose numbers have increased more rapidly than those of younger members and

whose illnesses are often of long duration and expensive to treat. The need has therefore been developing for a wider economic base than that of the family for the payment of unusually heavy health costs, especially among the elderly.

The average length of life in the United States has reached 70 years—67 years for men and 74 years for women; 71 years for whites and 64 years for persons of other races combined. Persons with a relatively high educational level or with a relatively high family income live longer, on the average, than those with less education or income. For example, persons at age 25 years in 1960 could expect to live about 7 years longer if they had completed at least 1 year of college than they would if they had completed less than 5 years of school. These two groups tend to differ significantly in life styles, in the ability to pay for medical services, and in the availability of other types of support that are needed in the event of illness or serious accident.

Nearly one-half of all deaths in the United States are attributable to the major cardiovascular diseases. Since 1950, the death rate from these diseases has declined by 13 percent, whereas the death rate from all other causes combined has actually increased by 2 percent. In particular, the proportion of all deaths that occur from malignant neoplasms (cancer) has become larger, and now this cause accounts for about one out of every six deaths. Likewise, increasing proportions of deaths occur from motor vehicle accidents, violence, cirrhosis of the liver, and diseases of the respiratory organs—with the noteworthy exception of a sharp drop in deaths from tuberculosis. Medical research and educational programs seem likely to develop the technology and the personal understanding of health problems that are required to reduce the deaths from selected causes for which rates remain high; such advances could bring further reductions in age-specific mortality rates for the United States before the end of the present century.

The importance of international migration as a factor in population growth is apparent from the fact that, during the 1960's, the average annual net civilian immigration was close to 400,000 persons. As a result of new legislation enacted in 1965, the average annual number of alien immigrants had risen by about one-fourth by the late 1960's, and the origins of immigrants tended to shift from northern to southern and eastern Europe; more came from Asia; also, the share of immigrants from North and South America diminished, but yet there were notable increases from the

West Indies and Mexico. The preference system under the 1965 legislation favored professional workers as immigrants. Consequently, a particularly large numerical increase occurred in professional workers who migrated from Asia, while the proportion of such workers among the small number of immigrants from Africa also increased considerably. If opportunities for the employment of these professional workers in their native countries improve through national and international development programs, probably fewer of them would decide to migrate to the United States. In the meantime, the immigration of well-educated persons from the Asian and African countries should have a positive effect on the image of their countries which they present to Americans.

Composition and Distribution of the Population

Variations in age, marriage, and living arrangements—Fluctuations in the age and sex distribution of the population because of changes in natural increase or migration can cause serious dislocations in the social and economic adjustments of a country or of a locality. Thus, reverberations of the low fertility period in the 1930's followed by the high fertility period after World War II have been keenly reflected in wide gyrations of the age distribution which will continue to be repeated with lessening intensity for decades to come. The effects are registered in vast changes in the demand for products and services that are needed by a particular age group, such as children's clothes and school teachers. The effects of variations in births have been augmented by the effects of wide variations in net immigration, particularly by the survivors from decade to decade of the heavy immigration that occurred early in the 20th century, with its large majority of men and its varied cultural backgrounds.

Rational planning for the future on the part of government and industry would be facilitated by a reduction in the range of birth and immigrant fluctuations. This objective appears to have advanced somewhat during recent years as the low birth rate among the large cohort of women born during the "baby boom" after World War II has prevented the recurrence of an upturn during the latter part of the last decade. As noted above, the net number of immigrants was relatively high in this period, and it therefore partly offset the relatively small number of births. However, growth through natural increase affects the size of the child population, whereas growth through immigration initially affects the size of the

population mainly in the young adult and middle ages. When the immigrants later on have children, however, the size of the child population is also affected.

Fluctuations in the number of births from one period to the next are related to variations in economic conditions, in age at marriage, in stability of marriage, and in the proportions of adults who ever marry, as well as other variables. Changes in age at marriage in the last two decades have been consequences in part of the relative scarcity of potential marriage partners of the preferred age—brides about 2 or 3 years younger than grooms. The scarcity of potential brides during the early part of the 1950's was associated with the "marriage squeeze" at that time which coincided with the lowest median ages at marriage on record in the United States. In the late 1960's and early 1970's, the tide turned in the opposite direction, and a relative excess of potential brides has been associated with a postponement of about 1 year in the age at first marriage as compared with the early 1950's.

During the last two decades the stability of marriage has been declining, as judged by the increase of two-thirds in the divorce rate since the mid-1950's and the smaller increase in remarriage rates. Widowhood has been delayed more and more by falling death rates among married persons. Consequently, the proportions married and widowed are lower than they were a decade ago, and the proportions single and divorced are higher. Estimates indicate that, among persons about 30 years old at present, close to 95 percent have married or will eventually marry, close to one-third will obtain a divorce, and close to four out of every five of those who obtain a divorce will eventually remarry. Although women who obtain a divorce eventually have about the same number of children as those with continuing first marriages, those who obtained a divorce would probably have had more children if they had had continuing marriages, in part because they tend to marry about 2 years younger than other women.

The living arrangements of the population have changed greatly since 1950. During the 1950's most of the increase in population was accounted for by persons living in families maintained by a married couple. But during the 1960's a sharply increasing proportion of living arrangements featured an elderly widowed person living alone, a divorced or separated woman maintaining a home with her child or children, or an unmarried young adult living in a "bachelor apartment" alone or with a

"partner." The average size of household has declined from 3.3 to 3.0 persons since the mid-1950's, and the number of single and divorced adults living in suburban apartments has risen quite sharply.

Among the conditions which gave rise to these changes were the rapid growth of the elderly population and the more adequate benefits provided for their welfare; the rising proportion divorced among employed persons; the increasing average age of young children in the family as the birth rate declined; the postponement of marriage; and the substantial increase of formerly married "singles," most of whom were between marriages. Among the consequences of these developments was an increase of one-half (from 8 to 12 percent) in the proportion of children of dependent age (under 18) who were living with their mother only, with fully 38 percent of Negro children living thus and 10 percent living apart from their mother.

Some of these changes in living arrangements reflect the voluntary choices that people have made in order to attain a more satisfying life style. However, in many instances they have undoubtedly been entered into unwillingly because of social or economic conditions beyond the control of the persons involved and therefore have generated stress.

Educational, ethnic, and religious composition—Advances in educational levels during the last two decades have been unusually large in the United States. The illiteracy rate has dropped from 3 percent to 1 percent, the proportion of adults 25 years old and over who have graduated from high school has risen one-half (from 39 to 58 percent), the proportion of adults who are college graduates has nearly doubled (from 7 to 12 percent), and the proportion of young persons in formal schooling has risen dramatically at all ages from 3 years upward. However, 15 percent of the 18- and 19-year-olds have discontinued their education before graduating from high school; and, despite a fourfold increase in the number of college students since 1952, 84 percent of the 25-to-29-year-olds in the spring of 1970 had never attended college or had discontinued their education before graduating from college. Moreover, the number of Negro college students has doubled in the last decade, but the Negro college enrollment rate is still only two-thirds that of white persons, just as Negro family income (closely related to Negro college enrollment rates) is still only about 60 percent of the corresponding figure for white families.

The increase in college enrollment during the 1960's continued a long-time trend, but it was probably augmented by the inducement for men to defer military service during the war in Vietnam by attending college. Moreover, as more young men were in military service or in college, more women also attended college or accepted employment. And, as the women increased their education and deferred marriage, they became better qualified and more available for employment. At the same time, opportunities for the employment of women increased sharply, not only in lines of work where women have traditionally worked, but also in many lines where few women had previously worked.

The cultural and material advancement achieved by the United States has been accomplished by a population characterized by varied national origins and religious backgrounds. Although 19 out of every 20 residents in 1970 were born in the United States, and although 5 out of every 6 were born of a father and mother who were likewise natives, each of a dozen foreign countries has contributed more than a million immigrants to the United States throughout the last 150 years. The order of frequency of U.S. residents who report themselves as of European origin or descent is as follows: British, German, Irish, Spanish, Italian, French, Polish, and Russian. Nearly 88 percent of U.S. residents in 1970 were white, 11 percent were Negro, and 1 percent were of other races. According to estimates for persons of all ages, based on the Census Bureau's only survey of religious preference covering all adults, 66 percent of the U.S. population in 1957 regarded themselves as Protestants, 26 percent as Roman Catholics, 3 percent as Jewish, 1 percent as of other religion, and 3 percent as having no religion; 1 percent did not report a preference.

In varying degrees, the characteristics of the population groups of differing origins have tended to converge as the younger (native) generation replaces the older (foreign-born) generation. For example, the levels of fertility and education have been changing between first-generation and second-generation residents of European origin in the direction of those for the U.S. population of all origins combined. Women of several national origins with low fertility in the older (foreign-born) generation have higher fertility in the younger (native) generation, and several with high fertility in the older generation have lower fertility in the younger generation. At the same time, among the adults of some origin groups, including those of English and of Russian origin, an above-average proportion have completed 1 year or more of college for both the

older and the younger age groups. Moreover, Negroes have been making gains in education and income relative to the levels for white persons, but the gaps between these groups remain substantial. As convergence of social and economic characteristics of ethnic and cultural groups has progressed, more members of minority groups have achieved positions of social importance.

Geographic distribution of the population—The United States ranks fourth among countries of the world in both area and population. China and the Soviet Union are larger and have more people; Canada is slightly larger, and India has more people. Throughout most of the Nation's history, population growth has generally proceeded from the seaboard areas of the Northeast and Southeast toward the Midwest, South Central region, and West. The Northeast—where immigrants most often settle—remains the most densely populated and most metropolitan region, with 310 persons per square mile, or 5 times the national average, and with some of the greatest concentrations of factories as well as shipping, trade, and financial centers.

The Midwest contains a large part of the Nation's most productive farm land, operated largely by descendants of north Europeans, and much of its heavy industry, manned largely by descendants of immigrants from other parts of Europe. The economy of the South has traditionally been based on cotton and tobacco, produced originally with the help of Negro labor. Today, however, its textile and petrochemical plants and resort and retirement activities are more important to its economy than agriculture. The sparsely settled Mountain States—where some of the greatest concentrations of American Indians are found—provide employment in mines, in forests, in resort and retirement centers, and on irrigated land in fertile lowlands and valleys. The economic activity of the Pacific States centers on a few major commercial and port cities, in which aircraft production is the chief of many important manufacturing industries; the region also grows vast amounts of horticultural produce. The population of the Pacific States includes many persons of Mexican and Asian origin as well as numerous recent inmigrants from the Midwest and South. Almost half the population of Alaska—the native land of 50,000 Aleuts, Indians, and Eskimos and the adopted land of far more migrants from the other States—live in, or within 50 miles of, its largest city, Anchorage.

The first U.S. census in 1790 showed only 5 percent of the population living in urban areas as now defined (mostly places of

2,500 inhabitants and over), whereas the 1970 census showed that 73 percent of the population was urban. The larger urban places are central cities of metropolitan areas. These metropolitan areas, including the "metropolitan rings" surrounding the cities, have grown rapidly and are expected to include 85 percent of the total U.S. population by the year 2000 (Pickard, 1972). This historic pattern of population concentration in large agglomerations has been associated with rising productivity and higher standards of living, but some of the side effects—traffic congestion, air and water pollution, and the heavy consumption of irreplaceable natural resources—demonstrate that population growth and concentration are not always synonymous with "the good life."

The 1970 census showed that only 4 percent of the U.S. population were living on farms. However, over 30 percent of the population were still living on farms in six States: Minnesota, Iowa, North Dakota, South Dakota, Nebraska, and Kansas. During the 1960's the farm population dropped by 5 million, or nearly 40 percent, but the decline has been diminishing, presumably because the supply of available outmigrants is approaching exhaustion in many regions.

Patterns of internal migration—Since 1950, natural increase has accounted for most of the net growth of population in the Northeast and Middle West. Movement of population to these regions from abroad and from certain parts of the South has been largely offset by movement from these regions to the West and parts of the South, in particular, Florida. During this period the South attracted many movers from the North and also from Cuba but had a net migratory loss amounting to about one-tenth of its natural increase. In the West—which gained 70 percent in population between 1950 and 1970—nearly one-half of the growth was due to net migration, including immigration (mainly from Mexico and Asia) and, more importantly, inmigration from other U.S. regions. Much of the recent interregional movement has been from nonmetropolitan areas of the Deep South, the Great Plains, and the Middle Appalachian coalfield areas, notably in West Virginia.

In general, migratory patterns have been influenced largely by movement away from nonmetropolitan areas with high natural increase and declining economic opportunities to growing metropolitan areas and their environs where there is substantial economic development and where amenities for comfortable living are more abundant. However, there is some evidence that the half-dozen

largest metropolitan areas may now be experiencing net losses from migration. Even if the rate of population growth for the country as a whole should approach zero within a few decades, the movement of population from less preferred to more preferred areas within the country would continue. This movement would create some problems and solve others.

As compared with many other countries, the movement of persons and families from one residence to another in the United States occurs at a relatively high rate. Thus, 20 percent of the U.S. population moved in a 12-month interval near 1960 as compared with 11 percent in England and Wales and 8 percent in Japan. In the United States, long-distance migration is more typical of persons in upper than in lower educational and occupational levels and, as these levels have risen, the rate of interstate movement among men 25 to 34 years old has increased. These persons are enjoying more freedom of choice in their place of residence and in the type of work they perform.

Peak movement is reached at age 22, when just under 50 percent of men move from one residence to another in the United States within a 12-month period. This age coincides most closely with a combination of critical life cycle changes, including marriage and/or entrance into the labor force after completion of school or military service. The early twenties is the period of life with the greatest concentration of long-distance moves, and a relatively large proportion of such moves are made by persons in the upper socioeconomic groups. At ages 25 to 34, single men are, in fact, less mobile than married men living with their spouse, but separated and divorced men are the most mobile of all; and fathers whose children are all of preschool age are more mobile than those with some children of school age. Migration differentials by social and economic level are most pronounced at the ages when migration rates are highest. Moreover, the most recent results available show that, among married couples with the husband 18 to 64 years old, two-thirds of those who moved within counties gave housing needs as the major reason for the move, whereas two-thirds of those moving between counties gave job-related reasons. Many adults who move are leaving areas where their job skills are no longer needed. Such persons cannot be profitably "stockpiled" in areas where they are not needed until opportunities arise for employing them there (Lee, 1970; Morrison, 1972). Persons seeking work need the assistance of employment agencies which can supply information about the types of jobs available locally or in more distant areas.

Differences in employment of men and women—During the late 1960's, a low point was reached in the proportion of adults who were unemployed, that is, who were looking for work but could not find suitable employment. The unemployment rate at that time was below 4 percent for all persons in the labor force but ranged from 2 percent for men 20 years old and over to 12 percent for teenagers (BLS, 1974, pp. 18 and 148). Overall, the annual average unemployment rate for 1973 was 4.9 percent.

The steadily increasing proportion of women workers is one of the most significant economic and social developments in recent decades. The number of female workers has doubled since 1947 to 33.3 million in 1972, while the number of male workers has increased by only one-fourth to 55.7 million. More young men have been delaying their work life while they acquire more education and/or serve in the Armed Forces, and more older men have been retiring earlier as pension and disability benefits have been expanded. Women have gained increasing opportunities for employment, especially in teaching, in clerical and sales work, and in nursing and other personal services. Also, more women are well educated, and the employment of women without regard to marital status has been increasingly accepted by employers, by society in general, and by husbands whose wives desire to work outside the home. In addition, since the birth rate has declined, the average age of children in the family has increased. At the same time, the divorce rate has risen sharply; this fact has caused more young women—many of them mothers—to maintain their own home through employment, often at work they were performing before obtaining a divorce.

The status of women has improved as more women have gained employment and as more of them have moved into positions of increasing responsibility. However, women whose entire adult life has been devoted to their careers have not uniformly achieved full equality with men in employment opportunities and in rates of pay, even if their qualifications are comparable with those of men (Suter and Miller, 1973). At the same time, some of the growth of female employment has occurred where well-qualified female applicants have been in competition with males who had marginal qualifications for the same positions. One of the continuing problems associated with the increase in female employment is finding suitable jobs for women in periods when jobs are scarce;

another is the difficulty often experienced in making adequate child care arrangements. Research concerning these and related problems among women in European countries, where employment rates for women are generally higher than in the United States, should be instructive (Campbell, 1973, p. 174). Many working mothers use their income, not only to improve their own well-being, but also to help rear and educate their children, the cost of which is variously estimated at $20,000 to $100,000 per child (U.S. Commission on Population Growth and the American Future, 1972, Final report, p. 81).

Occupation, industry, and income--For several decades, occupational shifts in the United States have been from agricultural to nonagricultural employment, from less skilled to more skilled manual labor, from domestic to nondomestic service occupations, and from blue-collar to white-collar occupations. About 40 percent of the men now work as craftsmen or operatives (largely skilled and semiskilled workers, especially workers in factories, truck drivers, etc.), whereas about 35 percent of the women are clerical workers, especially in stenographic work and office machine operation. About 15 percent of employed men and women are professional or technical workers, engaged in educational, health, legal, and scientific or humanitarian activities. The remainder are employed in managerial or sales work, service work, farming, or nonfarm labor.

Younger and better educated workers tend to enter and advance in the expanding occupations (including the professions); occupations requiring training and experience (such as clerical work); and occupations that are useful in advancement to better positions (such as sales work as a steppingstone to management). Earnings for year-round work ranged from nearly $12,000 in 1969, on the average, for men in professional and managerial work down to only about $3,000 for men in private household work. The average earnings of women ranged from about $7,000 for professional work down to $1,500 for private household work.

The industrial groups in which the largest numbers of persons are employed include manufacturing (26 percent), wholesale and retail trade (20 percent), and professional and related services (18 percent). These are among the industries in which the rate of increase in female employment has greatly exceeded that of men. Smaller industry groups in which the rate of increase in female employment has also been substantial are construction, business and repair services, finance (including insurance and real estate),

and public administration (largely clerical and management work in government offices).

Men in professional and related service industries had the highest median years of school completed, 16.3 years, and their median earnings for year-round work in 1969 were $9,200, close behind the $9,900 received by the top industrial group—finance, insurance, and real estate. Earnings of women were nearest those for men in public administration; here, the median earnings of women were the highest ($6,200), or 69 percent of the corresponding figure for men ($9,000). Both the number and percent of women employed in hospitals recorded above average increases in the 1960's. The highest mean earnings for an occupation group within an industry group were received by male managers employed in the mining industry ($17,200) and in the manufacturing industry ($16,500). The lowest mean earnings were for female workers in agriculture, forestry, and fisheries ($2,000) and in private household work ($1,300).

Approximately one-half of the U.S. families reported income from earnings only, that is, from wages and salary or from self-employment income. Families with "earnings only" had a mean income in 1969 of $10,500, those with "other income only" had $4,200, and those with "earnings and other income" had $13,300. For all families combined, the mean income in 1969 was $11,000, and the median income was $9,600; each of these two averages had risen about $1,500 by 1972.

After adjustment for inflation, median family income in the United States rose 35 percent during the 1960's. A primary reason for the increase was the fact that more wives were receiving income for work outside the home—about one-half of all wives were earners in 1969—and their income rose during the 1960's from 29 percent as much as that of their husbands to 33 percent. In 1969, 7 percent of wives received more income than their husbands.

The ratio of Negro to white median family income rose between 1959 and 1969 from 59 to 70 percent for husband-wife families, thus still leaving a wide gap. Median family income ranged widely by age and education of the head, from $3,700 for families with the head 65 years old and over with less than full elementary school education to $21,600 for families with the head 55 to 64 years old with 5 or more years of college. The median income of families with a female head was only a little over one-half as large as

that for all families. Although the proportion of families with incomes below the poverty line decreased from 19 percent in 1959 to 9 percent in 1972, 4 percent of families (in 1970) where the head worked year-round still remained below the poverty level.

Population Projections

One of the slogans used in announcing the 1970 census in the United States was: "We can't know where we're going if we don't know where we are." Finding out where we are going if past trends continue–with respect to total population, number of households, number of workers, etc.–is the objective of population projections. Whether the future population falls within the range of the projections depends on the demographer's knowledge and understanding about past trends and probable future changes in the variables that are involved and also on how much detail about the population is being projected. Thus, barring an unexpected disturbance with a gross effect on population change, the number of survivors at a future date among persons already living in the United States can be projected with considerable confidence because of the conviction that changes in the death rates in the foreseeable future are likely to be relatively minor.

However, because of wide fluctuations in the birth rate during the last few decades and uncertainties about how closely its future level will continue to approximate the present low level, the demographer is much less confident about making projections of the population that is yet unborn and hence he usually avoids setting narrow limits to such projections. Moreover, the net immigration component of population projections is usually determined by arbitrarily assuming the continuation of the average level observed during recent years.

In this context, much more confidence can be placed in the projection of the *number of adults* in 1980 or 1990 who will be heads of households, college students, or workers than in the projection of the *number of children* at those times who will be enrolled in elementary school. But in addition to the population component of such projections, another component is subject to future change, namely, the proportion of persons of each age group who are likely to be household heads, students, workers, etc. Because of these limitations, population projections are necessarily approximations, usually presented in terms of a reasonable range.

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Even though population projections are neither precise nor free from error, they are often (if not usually) regarded as one of the most reliable elements used in short- or long-range planning in the public and private sectors of the economy.

The summary figures in table 7.1 include a selection of the projections for 1990 together with comparable data for 1970 and 1950, so that reasonably likely changes over the next two decades can be compared with changes that have already occurred over the last two decades. Fuller details are presented on the projections in chapter VI and on the census and survey figures since 1950 in earlier chapters. These details portray the changing contributions of the several age groups to the totals shown here because of past and probable future fluctuations in the number of births and the other variables that are involved.

Table 7.1 Projections of Population, Households, School Enrollment, and Labor Force, 1990, and Estimates for 1970 and 1950: United States

Numbers in millions

Year (July 1)	Total population		Households	School enrollment		Labor force	
	United States	West		All levels	College level	Both sexes	Female
1990 projection:							
High	266.2	51.5	90.1	78.7	12.7	112.6	43.7
Low	239.1	48.0	87.8	64.0	10.4		
1970 estimate	204.9	[1]36.0	63.4	58.8	7.4	85.9	31.6
1950 estimate	152.3	[2]20.3	[3]43.6	[4]30.1	[4]2.2	63.9	18.4
Change, 1970-90:							
High	61.3	15.5	26.7	19.9	5.3	26.7	12.1
Low	34.2	12.0	24.4	5.2	3.0		
Change, 1950-70	52.6	15.7	19.8	28.7	5.2	22.0	13.2
Percent change, 1970-90:							
High	29.9	43.1	42.1	33.8	71.6	31.1	38.3
Low	16.7	33.3	38.5	8.8	40.5		
Percent change, 1950-70	34.5	77.3	45.4	95.3	236.4	34.4	71.7

[1]1972.
[2]Includes Alaska and Hawaii, which became States in 1959.
[3]March 1, 1950.
[4]October 1950.

Source: Tables 6.1, 6.2, 6.4, 6.5, and 6.8; U.S. Bureau of the Census, Current Population Reports, "School Enrollment of the Civilian Population: October 1950," Series P-20, No. 34, table 1; ibid., "Revised Estimates of the Population of States and Components of Population Change: 1950 to 1960," Series P-25, No. 304, table 2; ibid., "Projections of the Number of Households and Families: 1967 to 1985," Series P-25, No. 394, table A; ibid., "Estimates of the Population of the United States to February 1, 1972," Series P-25, No. 478; and U.S. Department of Labor, 1973 Manpower Report of the President, table A-1.

For every subject presented in table 7.1, the *high* projected "percent change" for the period between 1970 and 1990 is smaller than the corresponding percent change that has already occurred during the same length of time, that is, between 1950 and 1970. In other words, the projections imply that a more moderate *rate of change* seems to be in prospect during the next two decades than the rate experienced in the last two decades. For most of the subjects, the *low* projected rate of change between now and 1990 is less than one-half as large as the observed rate of change since 1950. Although this moderation of the rate of change may be in part a result of exercising caution in choosing the assumptions underlying the projections, it is in large measure a consequence of the generally downward trend in population growth observed or expected over the span of the 20th century. Within this context, several of the projected *absolute changes* for the next two decades are approximately equal to or exceed corresponding changes in the last two decades; therefore, these substantial changes will still bring with them a number of serious adjustment problems. However, a continued slackening of population growth should bring about economic benefits by enabling the Nation to concentrate more of its resources on improving the quality of public services to a population of moderate size, rather than merely increasing the quantity of services to a population of a larger size (Giffler, 1972).

Attention has been focused here on population trends and differentials over a 40-year period, from 1950 to 1970 and from 1970 to 1990. But since the pattern of changes from 1950 to the present have included variable fluctuations, the task of preparing projections has been difficult. The demographer who believes that the need for projections is important evaluates the recent changes and moves ahead with the preparation of the projections. Decisions are reached on a tentative basis as to whether the observed changes amount to fundamental shifts or whether they are temporary deviations along a line of gradual change. Since these decisions are fallible, continuous study is required so that historic development can be periodically reevaluated as the first step toward updating the projections (Shryock, Siegel, and Associates, 1971, chapter 24).

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